



**BAYER ADVANCED ALL-IN-ONE LAWN WEED &  
CRABGRASS KILLER I CONCENTRATE**

Version 2.0 / USA  
102000015602

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Revision Date: 11/12/2014  
Print Date: 04/01/2015

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE  
COMPANY/UNDERTAKING**

**Product identifier**

**Trade name** BAYER ADVANCED ALL-IN-ONE LAWN WEED & CRABGRASS  
KILLER I CONCENTRATE

**Product code (UVP)** 06033724

**SDS Number** 102000015602

**EPA Registration No.** 72155-86

**Relevant identified uses of the substance or mixture and uses advised against**

**Use** Herbicide

**Restrictions on use** See product label for restrictions.

**Information on manufacturer**

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

**Emergency telephone no.**

**Emergency Telephone  
Number (24hr/ 7 days)** 1-800-334-7577 (24 hours/day)

**Product Information  
Telephone Number** 1-800-331-2867

**SDS Information or Request** SDSINFO.BCS-NA@bayer.com

**SECTION 2: HAZARDS IDENTIFICATION**

**Classification in accordance with regulation HCS 29CFR §1910.1200**  
Acute toxicity (Inhalation): Category 4



**Signal word:** Warning

**Hazard statements**  
Harmful if inhaled.

**Precautionary statements**  
Avoid breathing mist and spray.  
Use only outdoors or in a well-ventilated area.



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IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER/doctor/physician if you feel unwell.

**Other hazards**

No other hazards known.

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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Hazardous Component Name</b>	<b>CAS-No.</b>	<b>Concentration % by weight</b>
2,4-D, dimethylamine salt	2008-39-1	4.85
Quinclorac	84087-01-4	1.61
Dicamba, dimethylamine salt	2300-66-5	0.45

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**SECTION 4: FIRST AID MEASURES**

**Description of first aid measures**

<b>General advice</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<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>Skin contact</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>Eye contact</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>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.

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Inhalation may provoke the following symptoms:, Burning sensation, Discomfort in the chest, Cough, Dizziness  Ingestion may provoke the following symptoms:, Vomiting, Discomfort in the chest, Abdominal pain, Diarrhoea
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**Indication of any immediate medical attention and special treatment needed**

<b>Treatment</b>	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.
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**SECTION 5: FIREFIGHTING MEASURES**

**Extinguishing media**

**Suitable** Foam, Carbon dioxide (CO<sub>2</sub>), Dry chemical, Water

**Unsuitable** None known.

**Special hazards arising from the substance or mixture** Dangerous gases are evolved in the event of a fire.

**Advice for firefighters**

**Special protective equipment for fire-fighters** Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

**Further information** Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray.

**Flash point** > 93.3 °C

**Autoignition temperature** no data available

**Lower explosion limit** no data available

**Upper explosion limit** no data available

**Explosivity** not applicable

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Precautions** Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

**Methods and materials for containment and cleaning up**

**Methods for cleaning up** Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional advice** Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.

**Reference to other sections** Information regarding safe handling, see section 7.  
Information regarding personal protective equipment, see section 8.  
Information regarding waste disposal, see section 13.

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**SECTION 7: HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** Handle and open container in a manner as to prevent spillage. Use only in area provided with appropriate exhaust ventilation.

**Hygiene measures** Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.  
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

**Conditions for safe storage, including any incompatibilities**

**Requirements for storage areas and containers** Store in original container and out of the reach of children, preferably in a locked storage area. Protect from freezing.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

2,4-D, dimethylamine salt	2008-39-1	2ug/m3 (AN ESL)	07 2011	TX ESL
2,4-D, dimethylamine salt	2008-39-1	20ug/m3 (ST ESL)	07 2011	TX ESL

No control parameters known.

**Exposure controls**

**Personal protective equipment**

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

**Respiratory protection** When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

**Hand protection** Chemical resistant nitrile rubber gloves

**Eye protection** Tightly fitting safety goggles

**Skin and body protection** Wear long-sleeved shirt and long pants and shoes plus socks.

**General protective measures** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.  
Keep and wash PPE separately from other laundry.



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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	brown-black
<b>Physical State</b>	opaque liquid
<b>Odor</b>	mild sweet
<b>Odour Threshold</b>	no data available
<b>pH</b>	7.0 - 8.5 at 100 %
<b>Vapor Pressure</b>	2.266 kPa / 17 mm Hg at 20 °C
<b>Vapor Density (Air = 1)</b>	no data available
<b>Density</b>	1.02 g/cm <sup>3</sup> at 20 °C
<b>Evaporation rate</b>	no data available
<b>Boiling Point</b>	> 100 °C / 212 °F
<b>Melting / Freezing Point</b>	< 1.7 °C / 35.06 °F
<b>Water solubility</b>	miscible
<b>Minimum Ignition Energy</b>	not applicable
<b>Decomposition temperature</b>	not applicable
<b>Partition coefficient: n-octanol/water</b>	no data available
<b>Viscosity</b>	4.3 mPa.s
<b>Flash point</b>	> 93.3 °C
<b>Autoignition temperature</b>	no data available
<b>Lower explosion limit</b>	no data available
<b>Upper explosion limit</b>	no data available
<b>Explosivity</b>	not applicable

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**SECTION 10: STABILITY AND REACTIVITY**

<b>Reactivity</b>	
<b>Thermal decomposition</b>	not applicable
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.



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<b>Conditions to avoid</b>	freezing
<b>Incompatible materials</b>	Acids
<b>Hazardous decomposition products</b>	No decomposition products expected under normal conditions of use.

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**SECTION 11: TOXICOLOGICAL INFORMATION**

<b>Exposure routes</b>	Ingestion, Skin contact, Inhalation, Eye contact
<b>Immediate Effects</b>	
<b>Eye</b>	Moderate eye irritation.
<b>Skin</b>	May be harmful if absorbed through skin. May cause skin irritation.
<b>Ingestion</b>	Harmful if swallowed.
<b>Inhalation</b>	May be harmful if inhaled.
<b>Information on toxicological effects</b>	
<b>Acute oral toxicity</b>	LD50 (rat) > 2,000 mg/kg
<b>Acute inhalation toxicity</b>	LC50 (rat) > 2.04 mg/l Exposure time: 4 h Determined in the form of liquid aerosol.  LC50 (rat) > 8.16 mg/l Exposure time: 1 h Determined in the form of liquid aerosol. Extrapolated from the 4 hr LC50.
<b>Acute dermal toxicity</b>	LD50 (rabbit) > 2,000 mg/kg
<b>Skin irritation</b>	Moderate skin irritation. (rabbit)
<b>Eye irritation</b>	Minimally irritating. (rabbit)
<b>Sensitisation</b>	Non-sensitizing. (guinea pig)

**Assessment repeated dose toxicity**

2,4-D dimethylamine salt did not cause specific target organ toxicity in experimental animal studies.  
Quinclorac did not cause specific target organ toxicity in experimental animal studies.  
Dicamba did not cause specific target organ toxicity in experimental animal studies.

**Assessment Mutagenicity**

2,4-D dimethylamine salt was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.  
Quinclorac was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.  
Dicamba was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**Assessment Carcinogenicity**

2,4-D was not carcinogenic in lifetime feeding studies in rats and mice.  
Quinclorac was not carcinogenic in lifetime feeding studies in rats and mice.



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Dicamba was not carcinogenic in lifetime feeding studies in rats and mice.

**ACGIH**

None.

**NTP**

None.

**IARC**

None.

**OSHA**

None.

**Assessment toxicity to reproduction**

2,4-D did not cause reproductive toxicity in a two-generation study in rats.  
Quinclorac did not cause reproductive toxicity in a two-generation study in rats.  
Dicamba did not cause reproductive toxicity in a two-generation study in rats.

**Assessment developmental toxicity**

2,4-D dimethylamine salt caused developmental toxicity only at dose levels toxic to the dams.  
Quinclorac did not cause developmental toxicity in rats and rabbits.  
Dicamba did not cause developmental toxicity in rats and rabbits.

**Further information**

Acute toxicity studies have been bridged from a similar formulation(s).  
The non-acute information pertains to the active ingredient(s).

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**SECTION 12: ECOLOGICAL INFORMATION**

<b>Biodegradability</b>	2,4-D dimethylamine salt: ; not rapidly biodegradable Quinclorac: ; not rapidly biodegradable Dicamba: ; not rapidly biodegradable
<b>Koc</b>	2,4-D dimethylamine salt: Koc: 72 - 471 Quinclorac: Koc: 13 - 54 Dicamba: Koc: 5.1
<b>Bioaccumulation</b>	2,4-D dimethylamine salt: Bioconcentration factor (BCF) 0.1; Does not bioaccumulate. Quinclorac: ; Does not bioaccumulate. Dicamba: ; Does not bioaccumulate.
<b>Mobility in soil</b>	2,4-D dimethylamine salt: Moderately mobile in soils Quinclorac: Mobile in soils Dicamba: Highly mobile in soils
<b>Environmental precautions</b>	Do not allow to get into surface water, drains and ground water. Do not contaminate surface or ground water by cleaning equipment or



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disposal of wastes, including equipment wash water.  
Drift or runoff from treated areas may adversely affect non-target plants.  
Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.  
Apply this product as specified on the label.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

<b>Product</b>	Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Never place unused product down any indoor or outdoor drain.
<b>Contaminated packaging</b>	Do not re-use empty containers. Place empty container in trash. Follow advice on product label and/or leaflet.
<b>RCRA Information</b>	Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

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**SECTION 14: TRANSPORT INFORMATION**

**49CFR**

UN number	<b>3082</b>
Class	9
Packaging group	III
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (2,4-D DIMETHYLAMINE SALT)
RQ	Reportable Quantity is reached with 2,061 lb of product.
<b>IMDG</b>	Not dangerous goods / not hazardous material
<b>IATA</b>	Not dangerous goods / not hazardous material

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.





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Freight Classification: COMPOUNDS, TREE OR WEEDKILLING, N.O.I., other than  
poison; HAVING A DENSITY OF GREATER THAN 20 LBS.  
PER CUBIC FOOT

**SECTION 15: REGULATORY INFORMATION**

**EPA Registration No.** 72155-86

**US Federal Regulations**

**TSCA list**

None.

**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**

None.

**SARA Title III - Section 313 - Toxic Chemical Release Reporting**

Dicamba, dimethylamine salt 2300-66-5 1.0%

**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.

**US State Right-To-Know Ingredients**

Dicamba, dimethylamine salt 2300-66-5 NJ, RI

**Canadian Regulations**

**Canadian Domestic Substance List**

None.

**Environmental**

**CERCLA**

2,4-D, dimethylamine salt 2008-39-1

**Clean Water Section 307 Priority Pollutants**

None.

**Safe Drinking Water Act Maximum Contaminant Levels**

None.

**International Regulations**

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

2,4-D, dimethylamine salt 2008-39-1

**EPA/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 required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:



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**Signal word:** Caution!

**Hazard statements:** Harmful if swallowed.  
Moderate eye irritation.  
Avoid contact with skin, eyes and clothing.  
Avoid breathing spray mist.

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**SECTION 16: OTHER INFORMATION**

**NFPA 704 (National Fire Protection Association):**

Health - 2      Flammability - 1      Instability - 0      Others - none

**HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)**

Health - 1      Flammability - 1      Physical Hazard - 0      PPE -

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

**Reason for Revision:** Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

**Revision Date:** 11/12/2014

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.