

**Material Safety Data Sheet****BAYER ADVANCED DURAZONE™ READY-TO-USE WEED & GRASS KILLER**

MSDS Number: 102000025452

MSDS Version 1.0

Revision Date: 04/26/2011

Print Date: 04/26/2011

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product name	BAYER ADVANCED DURAZONE™ READY-TO-USE WEED & GRASS KILLER
MSDS Number	102000025452
Product Use	Herbicide

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. 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.

Physical State liquid

Odor characteristic

Appearance off-white

Exposure routes Ingestion, Skin Absorption, Eye contact

Immediate Effects

Eye Moderate eye irritation. Avoid contact with eyes.

Skin May cause skin irritation. Harmful if absorbed through skin. Avoid contact with skin and clothing.

Ingestion Harmful if swallowed. Do not take internally.

Chronic or Delayed Long-Term

This product or its components may have target organ effects.

Potential Environmental Effect

Toxic to fish and aquatic invertebrates. This product may cause adverse effects on non-target plants.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Indaziflam	950782-86-2	0.0061
Diquat dibromide	85-00-7	0.061
Glyphosate, isopropylamine salt	38641-94-0	1.41

SECTION 4. FIRST AID MEASURES

General	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	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.
Skin	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.
Ingestion	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.
Inhalation	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.
Notes to physician Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Flash point	> 93.4 °C / 200.1 °F
Autoignition temperature	no data available
Lower Flammability Limit	no data available
Upper Flammability Limit	no data available



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Suitable extinguishing media	Water spray, Foam, Carbon dioxide (CO ₂), Dry chemical
Fire Fighting Instructions	Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Whenever possible, contain fire-fighting water by diking area with sand or earth. Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
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 vegetation.

SECTION 7. HANDLING AND STORAGE

Handling procedures	Handle and open container in a manner as to prevent spillage. Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation.
Storing Procedures	Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Protect from freezing.
Work/Hygienic Procedures	Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection	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.
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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

Indaziflam Diquat dibromide	950782-86-2 85-00-7	OES BCS*	TWA	0.14 mg/m3
		NIOSH	REL	0.5 mg/m3
		US CA OEL	TWA PEL	0.5 mg/m3
		TX ESL	ST ESL	1 ug/m3
		TX ESL	AN ESL	0.1 ug/m3
Glyphosate, isopropylamine salt	38641-94-0	TN OEL	TWA	0.5 mg/m3
		TX ESL	ST ESL	50 ug/m3
		TX ESL	AN ESL	5 ug/m3

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	off-white
Physical State	liquid
Odor	characteristic
pH	4.5 - 6.5 (100 %)
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Density	1.01 g/cm ³ at 20 °C
Evaporation rate	no data available
Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	soluble
Minimum Ignition Energy	no data available

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Decomposition temperature no data available

Partition coefficient: n-octanol/water no data available

Viscosity 100 - 300 cps

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid freezing

Incompatibility no data available

Hazardous Decomposition Products Thermal decomposition can lead to release of:
Carbon oxides
nitrogen oxides (NOx)
Oxides of phosphorus

Hazardous reactions No hazardous reactions when stored and handled according to prescribed instructions.

Chemical Stability Stable under normal conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity data have been bridged from a similar formulation containing a higher percentage of the active ingredients, indaziflam, diquat dibromide and glyphosate isopropylamine salt.

Acute oral toxicity rat: LD50: > 5,000 mg/kg

Acute dermal toxicity rabbit: LD50: > 2,000 mg/kg

Acute inhalation toxicity rat: LC50: > 2.04 mg/l
Exposure time: 4 h
Determined in the form of liquid aerosol.

rat: LC50: > 8.16 mg/l
Exposure time: 1 h
Determined in the form of liquid aerosol.
Extrapolated from the 4 hr LC50.

Skin irritation rabbit: Moderate skin irritation.

Eye irritation rabbit: Mild eye irritation.

Sensitisation guinea pig: Non-sensitizing.



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Chronic toxicity

Diquat dibromide: may cause effects to skin, lungs, liver and kidneys.

Glyphosate, isopropylamine salt: may decrease body weight gains and effects to liver.

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

SECTION 12. ECOLOGICAL INFORMATION

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. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Drift or runoff from treated areas may adversely affect non-target plants. Do not apply when weather conditions favor runoff or drift. Apply this product as specified on the label.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance

It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines. Never place unused product down any indoor or outdoor drain.

Container Disposal

Do not re-use empty containers. Place empty container in trash.

RCRA Information

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.

SECTION 14. TRANSPORT INFORMATION

According to national and international transport regulations this material is not classified as dangerous goods / hazardous material.



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SECTION 15. REGULATORY INFORMATION

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

None.

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

Diquat dibromide	85-00-7	CA, RI
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Canadian Regulations

Canadian Domestic Substance List

Diquat dibromide	85-00-7
Glyphosate, isopropylamine salt	38641-94-0

Environmental

CERCLA

Diquat dibromide	85-00-7	1,000 lbs
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Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

International Regulations

European Inventory of Existing Commercial Substances (EINECS)

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SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 1 Reactivity - 1 Others - none

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

Health - 2 Flammability - 1 Physical Hazard - 1 PPE -

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

Reason for Revision: New Material Safety Data Sheet.

Revision Date: 04/26/2011

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