



**ESPLANADE® EZ**

Version 3.0 / USA  
102000025082

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Revision Date: 04/09/2014  
Print Date: 04/09/2014

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

**Product identifier**

**Trade name** ESPLANADE® EZ

**Product code (UVP)** 80197926

**SDS Number** 102000025082

**EPA Registration No.** 432-1528

**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 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

Eye irritation : Category 2B

Skin irritation : Category 2



**Signal word:** Warning

**Hazard statements**

Harmful if inhaled.

Causes skin irritation.

Causes eye irritation.

**Precautionary statements**

Avoid breathing mist and spray.

Use only outdoors or in a well-ventilated area.



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Wear protective gloves.  
Wash thoroughly after handling.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Call a POISON CENTER or doctor/ physician if you feel unwell.  
IF ON SKIN: Wash with plenty of soap and water.  
Specific treatment (see supplemental first aid instructions on this label).  
If skin irritation occurs: Get medical advice/attention.  
Take off contaminated clothing and wash before reuse.  
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/attention.

**Other hazards**

No other hazards known.

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

Hazardous Component Name	CAS-No.	Average % by Weight
Indaziflam	950782-86-2	0.089
Diquat dibromide	85-00-7	0.89
Glyphosate, isopropylamine salt	38641-94-0	20.46
Synthetic amorphous silica	112926-00-8	1.00

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**SECTION 4: FIRST AID MEASURES**

**Description of first aid measures**

**General advice** When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

**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.

**Skin contact** 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.

**Eye contact** 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.

**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.

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



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<b>Symptoms</b>	To date no symptoms are known.
<b>Indication of any immediate medical attention and special treatment needed</b>	
<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**

<b>Suitable</b>	Water spray, Foam, Carbon dioxide (CO <sub>2</sub> ), Dry chemical
<b>Unsuitable</b>	None known.

<b>Special hazards arising from the substance or mixture</b>	Dangerous gases are evolved in the event of a fire.
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**Advice for firefighters**

<b>Special protective equipment for fire-fighters</b>	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
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<b>Further information</b>	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.
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<b>Flash point</b>	> 93.4 °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 6: ACCIDENTAL RELEASE MEASURES**

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

<b>Precautions</b>	Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.
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**Methods and materials for containment and cleaning up**

<b>Methods for cleaning up</b>	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.
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<b>Additional advice</b>	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.
<b>Reference to other sections</b>	Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

**SECTION 7: HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** 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.

**Hygiene measures** 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 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.

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

**Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Indaziflam	950782-86-2	0.14 mg/m <sup>3</sup> (TWA)		OES BCS*
Diquat dibromide (Inhalable fraction.)	85-00-7	0.5 mg/m <sup>3</sup> (TWA)	02 2012	ACGIH
Diquat dibromide (Respirable fraction.)	85-00-7	0.1 mg/m <sup>3</sup> (TWA)	02 2012	ACGIH
Diquat dibromide	85-00-7	0.5 mg/m <sup>3</sup> (REL)	2010	NIOSH
Diquat dibromide	85-00-7	0.5 mg/m <sup>3</sup> (TWA)	06 2008	TN OEL
Diquat dibromide	85-00-7	0.1ug/m <sup>3</sup> (AN ESL)	07 2011	TX ESL
Diquat dibromide	85-00-7	1ug/m <sup>3</sup> (ST ESL)	07 2011	TX ESL
Diquat dibromide (Total dust.)	85-00-7	0.5 mg/m <sup>3</sup> (TWA PEL)	08 2010	US CA OEL
Glyphosate, isopropylamine salt	38641-94-0	50ug/m <sup>3</sup> (ST ESL)	06 2010	TX ESL
Glyphosate, isopropylamine salt	38641-94-0	5ug/m <sup>3</sup> (AN ESL)	06 2010	TX ESL

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Synthetic amorphous silica	112926-00-8	6 mg/m3 (TWA)	1989	OSHA Z1A
Synthetic amorphous silica	112926-00-8	6 mg/m3 (TWA)	06 2008	TN OEL

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

#### 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

Safety glasses with side-shields

##### Skin and body protection

Wear long-sleeved shirt and long pants and shoes plus socks.

##### General protective measures

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.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white to pink
Physical State	Liquid
Odor	characteristic
Odour Threshold	no data available
pH	4.0 - 6.0 at 100 %
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Density	1.10 g/cm <sup>3</sup> 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	not applicable
Decomposition temperature	no data available



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<b>Partition coefficient: n-octanol/water</b>	no data available
<b>Viscosity</b>	300 - 800 cps
<b>Flash point</b>	> 93.4 °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**

**Reactivity**

<b>Thermal decomposition</b>	no data available
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	No hazardous reactions when stored and handled according to prescribed instructions.
<b>Conditions to avoid</b>	freezing
<b>Incompatible materials</b>	no data available
<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 Absorption, Eye contact
<b>Immediate Effects</b>	
<b>Eye</b>	Moderate eye irritation.
<b>Skin</b>	May cause skin irritation. Harmful if absorbed through skin.
<b>Ingestion</b>	Harmful if swallowed.

**Information on toxicological effects**

<b>Acute oral toxicity</b>	LD50 (rat) > 5,000 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.



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<b>Acute dermal toxicity</b>	LD50 (rabbit) > 2,000 mg/kg
<b>Skin irritation</b>	Moderate skin irritation. (rabbit)
<b>Eye irritation</b>	Mild eye irritation. (rabbit)
<b>Sensitisation</b>	Non-sensitizing. (guinea pig)

**Assessment repeated dose toxicity**

Indaziflam caused neurobehavioral effects and/or neuropathological changes in subchronic studies in rats and dogs.  
Glyphosate did not cause specific target organ toxicity in experimental animal studies.  
Diquat dibromide caused specific target organ toxicity in experimental animal studies in the following organ(s): Eyes, kidneys. Diquat dibromide caused cataract in animal studies.

**Assessment Mutagenicity**

Indaziflam was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.  
Glyphosate was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.  
Diquat dibromide was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**Assessment Carcinogenicity**

Indaziflam was not carcinogenic in lifetime feeding studies in rats and mice.  
Glyphosate was not carcinogenic in lifetime feeding studies in rats and mice.  
Diquat dibromide was not carcinogenic in lifetime feeding studies in rats and mice.

**ACGIH**

None.

**NTP**

None.

**IARC**

Synthetic amorphous silica	112926-00-8	Overall evaluation: 3
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**OSHA**

None.

**Assessment toxicity to reproduction**

Indaziflam caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Indaziflam is related to parental toxicity.  
Glyphosate did not cause reproductive toxicity in a two-generation study in rats.  
Diquat dibromide did not cause reproductive toxicity in a two-generation study in rats.

**Assessment developmental toxicity**

Indaziflam did not cause developmental toxicity in rats and rabbits.  
Glyphosate did not cause developmental toxicity in rats and rabbits.  
Diquat dibromide caused developmental toxicity only at dose levels toxic to the dams. The developmental effects seen with Diquat dibromide are related to maternal toxicity.

**Further information**

Only acute toxicity studies have been performed on the formulated product.  
The non-acute information pertains to the active ingredient(s).



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**SECTION 12: ECOLOGICAL INFORMATION**

<b>Biodegradability</b>	Indaziflam: ; not rapidly biodegradable Glyphosate: ; not rapidly biodegradable
<b>Koc</b>	Indaziflam: Koc: 496 Glyphosate: Koc: 6920
<b>Bioaccumulation</b>	Indaziflam: Bioconcentration factor (BCF) 66; Does not bioaccumulate. Glyphosate: ; Does not bioaccumulate.
<b>Mobility in soil</b>	Indaziflam: Moderately mobile in soils Glyphosate: Immobile in soil
<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 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.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

<b>Product</b>	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.
<b>Contaminated packaging</b>	Do not re-use empty containers. Place empty container in trash.
<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**

<b>49CFR</b>	Not dangerous goods / not hazardous material
<b>IMDG</b>	
UN number	<b>3082</b>
Class	9
Packaging group	III
Marine pollutant	YES



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Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
(INDAZIFLAM, DIQUAT DIBROMIDE SOLUTION)

#### IATA

UN number **3082**  
Class 9  
Packaging group III  
Environm. Hazardous Mark YES  
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
(INDAZIFLAM, DIQUAT DIBROMIDE SOLUTION )

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.

## SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-1528

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
Synthetic amorphous silica	112926-00-8	MN

#### Canadian Regulations

##### Canadian Domestic Substance List

Diquat dibromide	85-00-7
Glyphosate, isopropylamine salt	38641-94-0
Synthetic amorphous silica	112926-00-8

#### Environmental

##### CERCLA

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

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None.

#### Safe Drinking Water Act Maximum Contaminant Levels

None.

#### International Regulations

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

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

#### 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:

**Signal word:** Caution!

**Hazard statements:** Harmful if swallowed or absorbed through skin.  
Moderate eye irritation.  
Avoid contact with skin, eyes and clothing.

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## SECTION 16: OTHER INFORMATION

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

Health - 2      Flammability - 1      Instability - 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:** Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

**Revision Date:** 04/09/2014

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