



## HYVAR® X HERBICIDE

Version 2.0 / USA  
102000030322

1/11  
Revision Date: 09/01/2015  
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### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### Product identifier

**Trade name** HYVAR® X HERBICIDE

**Product code (UVP)** 84067970

**SDS Number** 102000030322

**EPA Registration No.** 432-1546

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

**Use** Herbicide

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

#### Information on supplier

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

**Responsible Department** Email: SDSINFO.BCS-NA@bayer.com

#### Emergency telephone no.

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

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

### SECTION 2: HAZARDS IDENTIFICATION

#### Classification in accordance with regulation HCS 29CFR §1910.1200

Carcinogenicity: Category 2

Acute toxicity(Oral): Category 4



**Signal word:** Warning

#### Hazard statements

Suspected of causing cancer.

Harmful if swallowed.

#### Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.



## HYVAR® X HERBICIDE

Version 2.0 / USA  
10200030322

2/11  
Revision Date: 09/01/2015  
Print Date: 09/01/2015

Wear protective gloves/ protective clothing/ eye protection/ face protection.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
IF exposed or concerned: Get medical advice/ attention.  
IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell.  
Rinse mouth.  
Store locked up.  
Dispose of contents/container in accordance with local regulation.

### Other hazards

No other hazards known.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Bromacil	314-40-9	80.0
Crystalline quartz (respirable)	14808-60-7	0.5
Silicon dioxide	7631-86-9	2.0

## 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

**Symptoms** To date no symptoms are known.

### Indication of any immediate medical attention and special treatment needed

**Treatment** Appropriate supportive and symptomatic treatment as indicated by the



**HYVAR® X HERBICIDE**

Version 2.0 / USA  
102000030322

3/11  
Revision Date: 09/01/2015  
Print Date: 09/01/2015

patient's condition is recommended. There is no specific antidote.

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**SECTION 5: FIREFIGHTING MEASURES**

**Extinguishing media**

**Suitable** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable** High volume water jet

**Special hazards arising from the substance or mixture** Dangerous gases are evolved in the event of a fire., Accumulation of fine dust may entail the risk of a dust explosion in the presence of air.

**Advice for firefighters**

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

**Further information** Evacuate personnel to safe areas. Fight fire from upwind position. Keep out of smoke. Do not allow run-off from fire fighting to enter drains or water courses.

**Flash point** not applicable

**Autoignition temperature** no data available

**Lower explosion limit** 0.11 %(V)

**Upper explosion limit** no data available

**Explosivity** no data available

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

**Precautions** Avoid dust formation. Use personal protective equipment.

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

**Methods for cleaning up** Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations. Contaminated soil may have to be removed and disposed.

**Additional advice** Do not allow to enter soil, waterways or waste water canal.

**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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**HYVAR® X HERBICIDE**

Version 2.0 / USA  
102000030322

4/11  
Revision Date: 09/01/2015  
Print Date: 09/01/2015

**SECTION 7: HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** Use only in area provided with appropriate exhaust ventilation. Avoid dust formation.

**Advice on protection against fire and explosion** Keep away from heat and sources of ignition.

**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.

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

**Requirements for storage areas and containers** Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

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

**Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Bromacil	314-40-9	10 mg/m <sup>3</sup> (TWA)	02 2012	ACGIH
Bromacil	314-40-9	10 mg/m <sup>3</sup> /1 ppm (REL)	2010	NIOSH
Bromacil	314-40-9	10 mg/m <sup>3</sup> /1 ppm (TWA)	1989	OSHA Z1A
Bromacil	314-40-9	10 mg/m <sup>3</sup> /1 ppm (TWA)	06 2008	TN OEL
Bromacil	314-40-9	10ug/m <sup>3</sup> (AN ESL)	07 2011	TX ESL
Bromacil	314-40-9	100ug/m <sup>3</sup> (ST ESL)	07 2011	TX ESL
Bromacil	314-40-9	10ppb (ST ESL)	07 2011	TX ESL
Bromacil	314-40-9	1ppb (AN ESL)	07 2011	TX ESL
Bromacil	314-40-9	10 mg/m <sup>3</sup> /1 ppm (TWA PEL)	08 2010	US CA OEL
Crystalline quartz (respirable) (Respirable fraction.)	14808-60-7	0.025 mg/m <sup>3</sup> (TWA)	02 2012	ACGIH
Crystalline quartz (respirable) (Respirable dust.)	14808-60-7	0.05 mg/m <sup>3</sup> (REL)	2010	NIOSH
Crystalline quartz (respirable)	14808-60-7	0.1 mg/m <sup>3</sup> (TWA)	1989	OSHA Z1A



**HYVAR® X HERBICIDE**

Version 2.0 / USA  
102000030322

5/11  
Revision Date: 09/01/2015  
Print Date: 09/01/2015

(Respirable dust.)				
Crystalline quartz (respirable) (Respirable dust.)	14808-60-7	0.1 mg/m3 (TWA)	06 2008	TN OEL
Crystalline quartz (respirable)	14808-60-7	0.27ug/m3 (AN ESL)	03 2014	TX ESL
Crystalline quartz (respirable)	14808-60-7	14ug/m3 (ST ESL)	03 2014	TX ESL
Crystalline quartz (respirable) (Respirable dust.)	14808-60-7	0.1 mg/m3 (TWA PEL)	08 2010	US CA OEL
Crystalline quartz (respirable) (Total dust.)	14808-60-7	0.3 mg/m3 (TWA PEL)	08 2010	US CA OEL
Crystalline quartz (respirable) (Respirable.)	14808-60-7	0.1 mg/m3 (TWA)	2000	Z3
Crystalline quartz (respirable) (Total dust.)	14808-60-7	0.3 mg/m3 (TWA)	2000	Z3
Crystalline quartz (respirable) (Respirable.)	14808-60-7	2.4millions of particles per cubic foot of air (TWA)	2000	Z3
Silicon dioxide	7631-86-9	6 mg/m3 (REL)	2010	NIOSH
Silicon dioxide (Particulate.)	7631-86-9	2ug/m3 (AN ESL)	02 2013	TX ESL
Silicon dioxide (Particulate.)	7631-86-9	27ug/m3 (ST ESL)	02 2013	TX ESL
Silicon dioxide	7631-86-9	20millions of particles per cubic foot of air (TWA)	2000	Z3
Silicon dioxide	7631-86-9	0.8 mg/m3 (TWA)	2000	Z3

**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  
or  
Goggles



## HYVAR® X HERBICIDE

Version 2.0 / USA  
102000030322

6/11  
Revision Date: 09/01/2015  
Print Date: 09/01/2015

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<b>Skin and body protection</b>	Wear long-sleeved shirt and long pants and shoes plus socks.
<b>General protective measures</b>	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>	beige
<b>Physical State</b>	powder
<b>Odor</b>	none
<b>Odour Threshold</b>	no data available
<b>pH</b>	8.5 - 9.5 at 2 % (20 °C)
<b>Vapor Pressure</b>	not applicable
<b>Vapor Density (Air = 1)</b>	no data available
<b>Density</b>	ca. 0.53 g/cm <sup>3</sup>
<b>Bulk density</b>	0.37 - 0.44 g/ml (loose)
<b>Evaporation rate</b>	not applicable
<b>Boiling Point</b>	no data available
<b>Melting / Freezing Point</b>	no data available
<b>Water solubility</b>	dispersible
<b>Minimum Ignition Energy</b>	no data available
<b>Decomposition temperature</b>	no data available
<b>Partition coefficient: n-octanol/water</b>	not applicable
<b>Viscosity</b>	not applicable
<b>Flash point</b>	not applicable
<b>Autoignition temperature</b>	no data available
<b>Lower explosion limit</b>	0.11 %(V)
<b>Upper explosion limit</b>	no data available
<b>Explosivity</b>	no data available

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## HYVAR® X HERBICIDE

Version 2.0 / USA  
102000030322

7/11  
Revision Date: 09/01/2015  
Print Date: 09/01/2015

### SECTION 10: STABILITY AND REACTIVITY

#### Reactivity

<b>Thermal decomposition</b>	no data available
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	no data available
<b>Incompatible materials</b>	Amines
<b>Hazardous decomposition products</b>	No decomposition products expected under normal conditions of use.

### SECTION 11: TOXICOLOGICAL INFORMATION

**Exposure routes** Ingestion, Inhalation, Eye contact, Skin Absorption

#### Immediate Effects

**Skin** Harmful if absorbed through skin.  
**Ingestion** Harmful if swallowed.

#### Information on toxicological effects

**Acute oral toxicity** LD50 (male rat) 2,000 mg/kg  
LD50 (female rat) 1,300 mg/kg

**Acute inhalation toxicity** LC50 (rat) > 5.2 mg/l  
Exposure time: 4 h

**Acute dermal toxicity** LD50 (rabbit) > 2,000 mg/kg

**Skin irritation** No skin irritation (rabbit)

**Eye irritation** Moderate eye irritation. (rabbit)

**Sensitisation** Non-sensitizing. (guinea pig)

#### ACGIH

Bromacil	314-40-9	Group A3
Crystalline quartz (respirable)	14808-60-7	Group A2

#### NTP

Crystalline quartz (respirable)	14808-60-7
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#### IARC

Crystalline quartz (respirable)	14808-60-7	Overall evaluation: 1
Silicon dioxide	7631-86-9	Overall evaluation: 3



**HYVAR® X HERBICIDE**

Version 2.0 / USA  
102000030322

8/11  
Revision Date: 09/01/2015  
Print Date: 09/01/2015

**OSHA**

None.

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**SECTION 12: ECOLOGICAL INFORMATION**

<b>Toxicity to fish</b>	LC50 ( <i>Lepomis macrochirus</i> (Bluegill sunfish)) 127 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient bromacil.  LC50 ( <i>Oncorhynchus mykiss</i> (rainbow trout)) 36 mg/l Exposure time: 96 h The value mentioned relates to the active ingredient bromacil.
<b>Toxicity to aquatic invertebrates</b>	EC50 ( <i>Daphnia magna</i> (Water flea)) 119 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient bromacil.
<b>Toxicity to aquatic plants</b>	ErC50 ( <i>Raphidocelis subcapitata</i> (freshwater green alga)) 0.017 mg/l Exposure time: 72 h The value mentioned relates to the active ingredient bromacil.
<b>Environmental precautions</b>	Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. 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.

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**SECTION 13: DISPOSAL CONSIDERATIONS**

<b>Waste treatment methods</b>	
<b>Product</b>	Dispose of contents/container in accordance with local regulation. Do not contaminate water, food, or feed by disposal. Follow container label instructions for disposal of wastes generated during use in compliance with the product label.
<b>Contaminated packaging</b>	Empty residue into application equipment. Triple rinse containers. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke.
<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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**HYVAR® X HERBICIDE**

Version 2.0 / USA  
10200030322

9/11  
Revision Date: 09/01/2015  
Print Date: 09/01/2015

**SECTION 14: TRANSPORT INFORMATION**

**49CFR** Not dangerous goods / not hazardous material

**IMDG**

UN number **3077**  
Class **9**  
Packaging group **III**  
Marine pollutant **YES**  
Proper shipping name **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (BROMACIL MIXTURE)**

**IATA**

UN number **3077**  
Class **9**  
Packaging group **III**  
Environm. Hazardous Mark **YES**  
Proper shipping name **ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (BROMACIL MIXTURE )**

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.** 432-1546

**US Federal Regulations**

**TSCA list**

Crystalline quartz (respirable) 14808-60-7

Silicon dioxide 7631-86-9

**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**

Bromacil 314-40-9

**US States Regulatory Reporting**

**CA Prop65**

This product contains a chemical known to the State of California to cause cancer.

Crystalline quartz (respirable) 14808-60-7

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

Bromacil 314-40-9 CA, MN, NJ, RI

Crystalline quartz (respirable) 14808-60-7 MN

Silicon dioxide 7631-86-9 CA, MN



## HYVAR® X HERBICIDE

Version 2.0 / USA  
10200030322

10/11  
Revision Date: 09/01/2015  
Print Date: 09/01/2015

### Canadian Regulations

#### Canadian Domestic Substance List

Silicon dioxide 7631-86-9

### Environmental

#### CERCLA

None.

#### Clean Water Section 307 Priority Pollutants

None.

#### Safe Drinking Water Act Maximum Contaminant Levels

None.

### International Regulations

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

Silicon dioxide 7631-86-9

### 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.  
Moderate eye irritation.  
Harmful if absorbed through skin.  
Avoid contact with skin, eyes and clothing.

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## SECTION 16: OTHER INFORMATION

### Abbreviations and acronyms

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
CAS-Nr.	Chemical Abstracts Service number
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	US. IARC Monographs on Occupational Exposures to Chemical Agents
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
N.O.S.	Not otherwise specified
NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

# Bayer Environmental Science

## SAFETY DATA SHEET



### **HYVAR® X HERBICIDE**

Version 2.0 / USA  
102000030322

11/11  
Revision Date: 09/01/2015  
Print Date: 09/01/2015

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

Health - 1      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:** New Safety Data Sheet.

**Revision Date:** 09/01/2015

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