



**BAYER ADVANCED 24 HOUR GRUB KILLER PLUS I  
READY-TO-SPREAD GRANULES**

Version 2.0 / USA  
102000016526

1/10  
Revision Date: 04/30/2014  
Print Date: 05/01/2014

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

**Product identifier**

**Trade name** BAYER ADVANCED 24 HOUR GRUB KILLER PLUS I READY-TO-  
SPREAD GRANULES

**Product code (UVP)** 79210698

**SDS Number** 102000016526

**EPA Registration No.** 72155-83

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

**Use** Insecticide

**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**

Eye irritation : Category 2B

**Signal word:** Warning

**Hazard statements**

Causes eye irritation.

**Precautionary statements**

Wash thoroughly after handling.

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.



**BAYER ADVANCED 24 HOUR GRUB KILLER PLUS I  
READY-TO-SPREAD GRANULES**

Version 2.0 / USA  
102000016526

2/10  
Revision Date: 04/30/2014  
Print Date: 05/01/2014

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

Hazardous Component Name	CAS-No.	Average % by Weight
Trichlorfon	52-68-6	9.30

**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>	To date no symptoms are known.
<b>Indication of any immediate medical attention and special treatment needed</b>	
<b>Risks</b>	This product is a cholinesterase inhibiting organophosphorous pesticide.
<b>Treatment</b>	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

**SECTION 5: FIREFIGHTING MEASURES**

**Extinguishing media**

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



**BAYER ADVANCED 24 HOUR GRUB KILLER PLUS I  
READY-TO-SPREAD GRANULES**

Version 2.0 / USA  
102000016526

3/10  
Revision Date: 04/30/2014  
Print Date: 05/01/2014

---

<b>Special hazards arising from the substance or mixture</b>	Accumulation of fine dust may entail the risk of a dust explosion in the presence of air.  In the event of fire the following may be released:, Nitrogen oxides (NOx), Carbon monoxide (CO)
<b>Advice for firefighters</b>	
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
<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.
<b>Flash point</b>	not applicable
<b>Autoignition temperature</b>	no data available
<b>Lower explosion limit</b>	not applicable
<b>Upper explosion limit</b>	not applicable
<b>Explosivity</b>	no data available

---

**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** Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. 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.

**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.

---

**SECTION 7: HANDLING AND STORAGE**

**Precautions for safe handling**

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

**Hygiene measures** Remove Personal Protective Equipment (PPE) immediately after handling this product. Remove soiled clothing immediately and clean



**BAYER ADVANCED 24 HOUR GRUB KILLER PLUS I  
READY-TO-SPREAD GRANULES**

Version 2.0 / USA  
102000016526

4/10  
Revision Date: 04/30/2014  
Print Date: 05/01/2014

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.

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

**Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Trichlorfon (Inhalable fraction.)	52-68-6	1 mg/m <sup>3</sup> (TWA)	02 2012	ACGIH
Trichlorfon	52-68-6	0.28 mg/m <sup>3</sup> (TWA)		OES BCS*
Trichlorfon	52-68-6	10ug/m <sup>3</sup> (ST ESL)	07 2011	TX ESL
Trichlorfon	52-68-6	1ug/m <sup>3</sup> (AN ESL)	07 2011	TX ESL

\*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**

Goggles

**Skin and body protection**

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

**General protective measures**

There are no known hazards associated with this product when used according to the label directions. The following guidelines should be followed.

Avoid breathing dust.

Avoid contact with skin and eyes.

Do not allow children or pets to enter the treated area until granules have been watered into the soil and the grass or soil is dry.

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet



**BAYER ADVANCED 24 HOUR GRUB KILLER PLUS I  
READY-TO-SPREAD GRANULES**

Version 2.0 / USA  
102000016526

5/10  
Revision Date: 04/30/2014  
Print Date: 05/01/2014

or applying cosmetics.

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	tan
<b>Physical State</b>	dry, free flowing granules
<b>Odor</b>	sweet
<b>Odour Threshold</b>	no data available
<b>pH</b>	4 - 5
<b>Vapor Pressure</b>	no data available
<b>Vapor Density (Air = 1)</b>	no data available
<b>Bulk density</b>	30 - 35 lb/ft <sup>3</sup>
<b>Evaporation rate</b>	not applicable
<b>Boiling Point</b>	not applicable
<b>Melting / Freezing Point</b>	not applicable
<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>	no data available
<b>Viscosity</b>	not applicable
<b>Flash point</b>	not applicable
<b>Autoignition temperature</b>	no data available
<b>Lower explosion limit</b>	not applicable
<b>Upper explosion limit</b>	not applicable
<b>Explosivity</b>	no data available

---

**SECTION 10: STABILITY AND REACTIVITY**

<b>Reactivity</b>	
<b>Thermal decomposition</b>	no data available
<b>Chemical stability</b>	Stable under normal conditions.



**BAYER ADVANCED 24 HOUR GRUB KILLER PLUS I  
READY-TO-SPREAD GRANULES**

Version 2.0 / USA  
102000016526

6/10  
Revision Date: 04/30/2014  
Print Date: 05/01/2014

---

<b>Possibility of hazardous reactions</b>	No hazardous reactions when stored and handled according to prescribed instructions.
<b>Conditions to avoid</b>	no data available
<b>Incompatible materials</b>	Strong acids, Oxidizing agents, Bases
<b>Hazardous decomposition products</b>	No decomposition products expected under normal conditions of use.

---

**SECTION 11: TOXICOLOGICAL INFORMATION**

<b>Exposure routes</b>	Eye contact, Ingestion, Inhalation, Skin contact
<b>Immediate Effects</b>	
<b>Eye</b>	May cause slight irritation.
<b>Skin</b>	Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.
<b>Ingestion</b>	Harmful if swallowed.
<b>Inhalation</b>	Dusts may cause upper respiratory tract irritation, coughing.
<b>Information on toxicological effects</b>	
<b>Acute oral toxicity</b>	LD50 (female rat) > 5,000 mg/kg
<b>Acute dermal toxicity</b>	LD50 (rat) > 5,000 mg/kg
<b>Skin irritation</b>	Slight irritation (rabbit)
<b>Eye irritation</b>	Moderate eye irritation. (rabbit)
<b>Sensitisation</b>	Non-sensitizing. (guinea pig)

**Assessment repeated dose toxicity**

Trichlorfon did not cause specific target organ toxicity in experimental animal studies.

**Assessment Mutagenicity**

Trichlorfon was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

**Assessment Carcinogenicity**

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

**ACGIH**

Trichlorfon	52-68-6	Group A4
-------------	---------	----------

**NTP**

None.

**IARC**

Trichlorfon	52-68-6	Overall evaluation: 3
-------------	---------	-----------------------



**BAYER ADVANCED 24 HOUR GRUB KILLER PLUS I  
READY-TO-SPREAD GRANULES**

Version 2.0 / USA  
102000016526

7/10  
Revision Date: 04/30/2014  
Print Date: 05/01/2014

**OSHA**

None.

**Assessment toxicity to reproduction**

Trichlorfon is not considered a reproductive toxicant at non-maternally toxic dose levels.

**Assessment developmental toxicity**

Trichlorfon did not cause developmental toxicity in rats and rabbits.

**Further information**

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

---

**SECTION 12: ECOLOGICAL INFORMATION**

<b>Biodegradability</b>	Trichlorfon: ; rapidly biodegradable
<b>Koc</b>	Trichlorfon: Koc: 0
<b>Bioaccumulation</b>	Trichlorfon: Bioconcentration factor (BCF) 0.41; Does not bioaccumulate.
<b>Mobility in soil</b>	Trichlorfon: 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 disposal of wastes, including equipment wash water. Apply this product as specified on the label.

---

**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. 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.

---



**BAYER ADVANCED 24 HOUR GRUB KILLER PLUS I  
READY-TO-SPREAD GRANULES**

Version 2.0 / USA  
102000016526

8/10  
Revision Date: 04/30/2014  
Print Date: 05/01/2014

**SECTION 14: TRANSPORT INFORMATION**

**49CFR**

UN number	<b>3077</b>
Class	9
Packaging group	III
Marine pollutant	Marine pollutant
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S. (TRICHLORFON)
RQ	Reportable Quantity is reached with 1,075 lb of product.

**IMDG**

UN number	<b>3077</b>
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (TRICHLORFON MIXTURE)

**IATA**

UN number	<b>3077</b>
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (TRICHLORFON 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.

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

**SECTION 15: REGULATORY INFORMATION**

**EPA Registration No.** 72155-83

**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.





**BAYER ADVANCED 24 HOUR GRUB KILLER PLUS I  
READY-TO-SPREAD GRANULES**

Version 2.0 / USA  
102000016526

9/10  
Revision Date: 04/30/2014  
Print Date: 05/01/2014

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

Trichlorfon 52-68-6 25,000lbs

**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**

Trichlorfon 52-68-6 CA, CT, IL, NJ, RI

**Canadian Regulations**

**Canadian Domestic Substance List**

Trichlorfon 52-68-6

**Environmental**

**CERCLA**

Trichlorfon 52-68-6 100 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)**

Trichlorfon 52-68-6

**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.  
Do not breathe dust.  
Avoid contact with skin, eyes and clothing.  
Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

---

**SECTION 16: OTHER INFORMATION**



**BAYER ADVANCED 24 HOUR GRUB KILLER PLUS I  
READY-TO-SPREAD GRANULES**

Version 2.0 / USA  
102000016526

10/10  
Revision Date: 04/30/2014  
Print Date: 05/01/2014

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

**Revision Date:** 04/30/2014

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.