



**Material Safety Data Sheet**  
**BALANCE® PRO HERBICIDE**

MSDS Number: 102000004081  
 MSDS Version 2.0  
 Revision Date: 04/12/2007

**SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION**

**Product Name** BALANCE® PRO HERBICIDE  
**MSDS Number** 102000004081  
**EPA Registration No.** 264-600

Bayer CropScience  
 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: 1-866-99BAYER (1-866-992-2937)

**SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Isoxaflutole	141112-29-0	40.50
1,2-Propanediol	57-55-6	
Attapulgite clay	12174-11-7	
Alkyl polyglycoside		

**SECTION 3. 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. Avoid inhalation of vapour or mist.

**Physical State** liquid suspension

**Odor** mild

**Appearance** slightly yellow to light brown

**Routes of Exposure** Eye contact, Inhalation, Skin Absorption, Skin contact, Ingestion

**Immediate Effects**

**Eye** Moderate eye irritation. Do not get in eyes.

**Skin** May cause slight irritation. Avoid contact with skin and clothing.

**Ingestion** Do not take internally. Harmful if swallowed.

**Inhalation** Do not breathe vapours or spray mist. Harmful if inhaled.



**Material Safety Data Sheet**  
**BALANCE® PRO HERBICIDE**

MSDS Number: 102000004081  
 MSDS Version 2.0

<b>Chronic or Delayed Long-Term</b>	This product or its components may have target organ effects.
<b>Medical Conditions Aggravated by Exposure</b>	Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

**SECTION 4. FIRST AID MEASURES**

<b>General</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
<b>Eye</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>Skin</b>	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. 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.
<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>Notes to Physician Signs and Symptoms</b>	Local: To date no symptoms are known.  Systemic: To date no symptoms are known.
<b>Hazards</b>	Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
<b>Treatment</b>	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

**SECTION 5. FIRE FIGHTING MEASURES**

<b>Flash point</b>	> 95.4 °C / 203.7 °F
--------------------	----------------------



**Material Safety Data Sheet**  
**BALANCE® PRO HERBICIDE**

MSDS Number: 102000004081  
 MSDS Version 2.0

<b>Fire and Explosion Hazards</b>	Dangerous gases are evolved in the event of a fire.
<b>Suitable Extinguishing Media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable Extinguishing media</b>	High volume water jet
<b>Fire Fighting Instructions</b>	Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth.  In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions</b>	Keep people away from and upwind of spill/leak. Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke.
<b>Methods for Cleaning Up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Keep in suitable, closed containers for disposal. Clean floors and contaminated objects with plenty of water.
<b>Additional Advice</b>	Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13. Check also for any local site procedures.

**SECTION 7. HANDLING AND STORAGE**

<b>Handling Procedures</b>	No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Use only in area provided with appropriate exhaust ventilation.
<b>Storing Procedures</b>	Store in a place accessible by authorized persons only. Keep away from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from freezing.
<b>Work/Hygienic Procedures</b>	Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.  Remove soiled clothing immediately and clean thoroughly before using again. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Wash thoroughly and put on clean clothing.



**Material Safety Data Sheet**  
**BALANCE® PRO HERBICIDE**

MSDS Number: 102000004081  
 MSDS Version 2.0

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

<b>General Protection</b>	Follow all label instructions. Train employees in safe use of the product.				
	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.				
<b>Eye/Face Protection</b>	Tightly fitting safety goggles				
<b>Hand Protection</b>	Chemical resistant nitrile rubber gloves				
<b>Body Protection</b>	Wear long-sleeved shirt and long pants and shoes plus socks.				
<b>Respiratory Protection</b>	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.				
<b>Exposure Limits</b>					
	1,2-Propanediol	57-55-6	WEEL	TWA	10 mg/m3
			Form of exposure	Aerosol.	

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	slightly yellow to light brown
<b>Physical State</b>	liquid suspension
<b>Odor</b>	mild
<b>pH</b>	4.7 - 5.7 Determined in the undiluted form.
<b>Vapor Pressure</b>	0.013 hPa at 25 °C
<b>Density</b>	approx. 1.20 g/cm³ at 20 °C
<b>Water solubility</b>	miscible
<b>Viscosity</b>	500 - 800 mPa.s

**SECTION 10. STABILITY AND REACTIVITY**

<b>Conditions to Avoid</b>	Extremes of temperature and direct sunlight.
<b>Hazardous</b>	Thermal decomposition



**Material Safety Data Sheet**  
**BALANCE® PRO HERBICIDE**

MSDS Number: 102000004081  
 MSDS Version 2.0

**Decomposition Products**    nitrogen oxides (NOx)  
    Carbon oxides

**Hazardous Reactions**        No hazardous reactions when stored and handled according to prescribed instructions.  
    Stable under recommended storage conditions.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Only acute toxicity studies have been performed on this product as formulated. The non-acute information pertains to the technical-grade active ingredient, isoxaflutole.

**Acute Oral Toxicity**            male/female combined rat: LD50: > 2,000 mg/kg

**Acute Dermal Toxicity**        male/female combined rabbit: LD50: > 2,000 mg/kg

**Acute Inhalation Toxicity**    male/female combined rat: LC50: > 4.4 mg/l  
    Exposure time: 4 h  
    Determined in the form of liquid aerosol.

   male/female combined rat: LC50: > 17.6 mg/l  
    Exposure time: 1 h  
    Determined in the form of liquid aerosol.  
    Extrapolated from the 4 hr LC50.

**Skin Irritation**                 rabbit: Slight irritation.

**Eye Irritation**                 rabbit: Moderate eye irritation.

**Sensitization**                 guinea pig: Non-sensitizing.

**Chronic Toxicity**               Isoxaflutole caused liver and/or thyroid effects in chronic studies in rats and mice.

**Assessment Carcinogenicity**

Isoxaflutole caused liver and/or thyroid tumors in lifetime feeding studies in rats and mice. These effects were only seen at the highest dose tested (the Maximum Tolerated Dose) which was far higher than any exposure that could be envisaged for humans. Thus, isoxaflutole presents negligible, if any, increased cancer risk for humans.

**ACGIH**

None.

**NTP**

None.

**IARC**

Attapulgitic clay	12174-11-7	Overall evaluation: 2B (LONG FIBRES, > 5 MICROMETERS)
Attapulgitic clay	12174-11-7	Overall evaluation: 3 (SHORT FIBRES, < 5 MICROMETERS)



**Material Safety Data Sheet**  
**BALANCE® PRO HERBICIDE**

MSDS Number: 102000004081  
 MSDS Version 2.0

**OSHA**  
 None.

<b>Reproductive &amp; Developmental Toxicity</b>	<p><b>REPRODUCTION:</b> Isoxaflutole was not a reproductive toxicant in multi-generation studies in rats.</p> <p><b>DEVELOPMENTAL TOXICITY:</b> Isoxaflutole was not a developmental toxicant in laboratory animals.</p>
<b>Neurotoxicity</b>	<p>Isoxaflutole was not a neurotoxicant in acute, subchronic or developmental neurotoxicity screening studies in rats.</p>
<b>Mutagenicity</b>	<p>Isoxaflutole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.</p>

**SECTION 12. ECOLOGICAL INFORMATION**

<b>Toxicity to Fish</b>	<p>Oncorhynchus mykiss (rainbow trout)                  LC50: &gt; 1.7 mg/l                  Exposure time: 96 h                  The value mentioned relates to the active ingredient isoxaflutole.</p>
<b>Toxicity to Aquatic Plants</b>	<p>Selenastrum capricornutum                  EC50: 0.12 mg/l                  Exposure time: 120 h                  The value mentioned relates to the active ingredient isoxaflutole.</p>
<b>Acute Toxicity to Aquatic Invertebrates</b>	<p>Water flea (Daphnia magna)                  EC50: &gt; 1.5 mg/l                  Exposure time: 48 h                  The value mentioned relates to the active ingredient isoxaflutole.</p>
<b>Environmental Precautions</b>	<p>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. Do not apply when weather conditions favor runoff or drift. 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.</p>



