

**BALANCE® PRO HERBICIDE**Version 1.0 / USA
102000031431

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Revision Date: 01/19/2016

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**Product identifier****Trade name** BALANCE® PRO HERBICIDE**Product code (UVP)** 84480797**SDS Number** 102000031431**EPA Registration No.** 264-600**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 CropScience
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA**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** 1-866-99BAYER (1-866-992-2937)**SECTION 2: HAZARDS IDENTIFICATION****Classification in accordance with regulation HCS 29CFR §1910.1200**

Reproductive toxicity: Category 2

**Signal word:** Warning**Hazard statements**

Suspected of damaging fertility or the unborn child.

Precautionary statements

Obtain special instructions before use.

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

Wear protective gloves/ protective clothing/ eye protection/ face protection.

IF exposed or concerned: Get medical advice/ attention.

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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
Isoxaflutole	141112-29-0	40.5
D-Glucopyranose, oligomeric, C9-11-alkyl glycosides	132778-08-6	3.15

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

Symptoms To date no symptoms are known.

Indication of any immediate medical attention and special treatment needed

Risks Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Treatment 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****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.**Advice for firefighters****Special protective equipment for fire-fighters** Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.**Further information** Keep out of smoke. Fight fire from upwind position. Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. 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.**Flash point** > 95.4 °C**Autoignition temperature** no data available**Lower explosion limit** no data available**Upper explosion limit** no data available**Explosivity** Not applicable**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** 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 floors and contaminated objects with plenty of water.**Additional advice** Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants.**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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SECTION 7: HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice. Ensure adequate ventilation.

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.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. 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 place accessible by authorized persons only. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight. Protect from freezing.

Advice on common storage Keep away from food, drink and animal feedingsuffs.

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

Components	CAS-No.	Control parameters	Update	Basis
Isoxaflutole	141112-29-0	0.6 mg/m ³ (TWA)		OES BCS*
1,2-Propanediol	57-55-6	50ppb (AN ESL)	03 2014	TX ESL
1,2-Propanediol	57-55-6	100ug/m ³ (AN ESL)	03 2014	TX ESL
1,2-Propanediol	57-55-6	1000ug/m ³ (ST ESL)	03 2014	TX ESL
1,2-Propanediol	57-55-6	500ppb (ST ESL)	03 2014	TX ESL
1,2-Propanediol (Aerosol.)	57-55-6	10 mg/m ³ (TWA)	2010	WEEL

*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

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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	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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	slightly yellow to light brown
Physical State	suspension
Odor	mild
Odour Threshold	no data available
pH	4.7 - 5.8 at 100 % (23 °C)
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Density	ca. 1.20 g/cm ³ at 20 °C
Evaporation rate	no data available
Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	dispersible
Minimum Ignition Energy	Not applicable
Decomposition temperature	no data available
Partition coefficient: n-octanol/water	Not applicable
Viscosity	500 - 800 mPa.s at 20 °C
Flash point	> 95.4 °C
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	Not applicable

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SECTION 10: STABILITY AND REACTIVITY**Reactivity**

Thermal decomposition	no data available
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	no data available
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Eye contact, Inhalation, Skin Absorption, Ingestion
Immediate Effects	
Eye	Moderate eye irritation.
Skin	May cause slight irritation. Harmful if absorbed through skin.
Ingestion	Harmful if swallowed.
Inhalation	Harmful if inhaled.
Information on toxicological effects	
Acute oral toxicity	LD50 (rat) > 2,000 mg/kg
Acute inhalation toxicity	LC50 (rat) > 4.39 mg/l Exposure time: 4 h Determined in the form of liquid aerosol. highest concentration tested No deaths
Acute dermal toxicity	LD50 (rabbit) > 2,000 mg/kg
Skin irritation	Slight irritation (rabbit)
Eye irritation	Moderate eye irritation. (rabbit)
Sensitisation	Non-sensitizing. (guinea pig) OECD Test Guideline 406, Buehler test

Assessment repeated dose toxicity

Isoxaflutole caused specific target organ toxicity in experimental animal studies in the following organ(s): liver, Thyroid. The observed effects do not appear to be relevant for humans.

Assessment mutagenicity

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Isoxaflutole was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Isoxaflutole caused at high dose levels an increased incidence of tumours in the following organ(s): liver. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Assessment toxicity to reproduction

Isoxaflutole did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Isoxaflutole caused developmental toxicity only at dose levels toxic to the dams. Isoxaflutole caused a delayed ossification of fetuses. The developmental effects seen with Isoxaflutole are related to maternal toxicity.

Further information

Acute toxicity studies have been bridged from a similar formulation(s).
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION**Toxicity to fish**

LC50 (Oncorhynchus mykiss (rainbow trout)) > 1.7 mg/l
Exposure time: 96 h
The value mentioned relates to the active ingredient isoxaflutole.

Toxicity to aquatic invertebrates

EC50 (Daphnia magna (Water flea)) > 1.5 mg/l
Exposure time: 48 h
The value mentioned relates to the active ingredient isoxaflutole.

Toxicity to aquatic plants

EC50 (Raphidocelis subcapitata (freshwater green alga)) 0.12 mg/l
Exposure time: 120 h
The value mentioned relates to the active ingredient isoxaflutole.
EC50 (Lemna gibba (gibbous duckweed)) 0.01439 mg/l
Growth rate; Exposure time: 216 h
The value mentioned relates to the active ingredient isoxaflutole.

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	NOEC (Lemna gibba (gibbous duckweed)) 0.00056 mg/l The value mentioned relates to the active ingredient isoxaflutole.
Biodegradability	Isoxaflutole: Not rapidly biodegradable
Koc	Isoxaflutole: Koc: 112
Bioaccumulation	Isoxaflutole: Bioconcentration factor (BCF) 11 Does not bioaccumulate.
Mobility in soil	Isoxaflutole: Moderately mobile in soils
Additional ecological information	No other effects to be mentioned.
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. 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.

SECTION 13: DISPOSAL CONSIDERATIONS**Waste treatment methods**

Product	Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility. Dispose in accordance with all local, state/provincial and federal regulations.
Contaminated packaging	Do not re-use empty containers. Triple rinse containers. Puncture container to avoid re-use. 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. Follow advice on product label and/or leaflet.
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

49CFR

Not dangerous goods / not hazardous material

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UN number	3082
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISOXAFLUTOLE SOLUTION)

IATA

UN number	3082
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ISOXAFLUTOLE 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.** 264-600**US Federal Regulations****TSCA list**

D-Glucopyranose, oligomeric, C9-11-alkyl glycosides 132778-08-6

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

Isoxaflutole 141112-29-0

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

None.

Canadian Regulations

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Canadian Domestic Substance List

None.

Environmental**CERCLA**

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

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.
Avoid inhalation of vapour or mist.**SECTION 16: OTHER INFORMATION****Abbreviations and acronyms**

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	International Agency for Research on Cancer
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



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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: 01/19/2016

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