



Material Safety Data Sheet
AUTUMN™ HERBICIDE

MSDS Number: 102000001346
 MSDS Version 2.0
 Revision Date: 05/21/2008

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name AUTUMN™ HERBICIDE
MSDS Number 102000001346
EPA Registration No. 264-856

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>
Iodosulfuron-methyl-sodium	144550-36-7	10.00

SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

Emergency Overview Caution! Harmful if inhaled. Avoid breathing dust. Moderate eye irritation. Avoid contact with skin, eyes and clothing.

Physical State water-dispersible granules

Odor strong characteristic

Appearance light brown

Routes of Exposure Eye contact, Ingestion

Immediate Effects

Eye Moderate eye irritation. May cause redness, tearing. Avoid contact with eyes.

Skin Avoid contact with skin and clothing.

Ingestion Do not take internally.

Inhalation Harmful if inhaled. Avoid breathing dust.

SECTION 4. FIRST AID MEASURES



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General	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	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.
Skin	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.
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.
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.
Notes to Physician	
Signs and Symptoms	To date no symptoms are known.
Treatment	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

SECTION 5. FIRE FIGHTING MEASURES

Explosiveness	Not explosive. 92/69/EEC, A.14 / OECD 113
Fire and Explosion Hazards	In the event of fire the following can be released: Carbon monoxide (CO) Nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus Hydrogen iodide (HI)
Suitable Extinguishing Media	Water spray, Foam, Carbon dioxide (CO2), Dry powder
Unsuitable extinguishing media	High volume water jet



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Fire Fighting Instructions Do not allow run-off from fire fighting to enter drains or water courses.
 Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Do not breathe dust.
Methods for Cleaning Up Use mechanical handling equipment. Keep in suitable, closed containers for disposal.
Additional Advice 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

Handling Procedures Provide for appropriate exhaust ventilation and dust collection at machinery. Avoid dust formation.
Storing Procedures Store in original container. Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed.
Work/Hygienic Procedures When using, do not eat, drink or smoke. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection 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.
 Follow all label instructions. Train employees in safe use of the product.
Eye/Face Protection Safety glasses
Hand Protection PVC or nitrile rubber gloves
Body Protection Wear long-sleeved shirt and long pants and shoes plus socks.
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.



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Exposure Limits

This product contains material which are Trade Secret and may have Occupational Exposure Limits. If more information is required, call the product information number listed in Section 1.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	light brown
Physical State	water-dispersible granules
Odor	strong characteristic
pH	9.5 - 11 (10 %) at 20 °C
Bulk Density	718 - 842 kg/m3
Water solubility	dispersible
Decomposition Temperature	> 390 °C DTA , Heating rate: 10 K/min

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Storage temperature should ideally lie between 0 and 40 °C, however, storage for two weeks at 54 °C has shown no adverse effects regarding product safety or stability.
Hazardous Reactions	No hazardous reactions known. 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, iodosulfuron-methyl-sodium.

Acute Oral Toxicity	male/female combined rat: LD50: > 5,000 mg/kg
Acute Dermal Toxicity	male/female combined rat: LD50: > 5,000 mg/kg



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Acute Inhalation Toxicity	male/female combined rat: LC50: > 2.0 mg/l Exposure time: 4 h Determined in the form of a respirable fine dust. (actual) Highest attainable concentration. No deaths male/female combined rat: LC50: > 8.0 mg/l Exposure time: 1 h Determined in the form of a respirable fine dust. Extrapolated from the 4 hr LC50. (actual)
Skin Irritation	rabbit: No skin irritation.
Eye Irritation	rabbit: Mild eye irritation.
Sensitization	guinea pig: Non-sensitizing.
Chronic Toxicity	Iodosulfuron-methyl-sodium caused body weight changes in rats and minimal to moderate hematopoietic hyperplasia and increased cholesterol in dogs.
Assessment Carcinogenicity	Iodosulfuron-methyl-sodium was not carcinogenic in lifetime feeding studies in rats and mice.
ACGIH	None.
NTP	None.
IARC	None.
OSHA	None.
Reproductive & Developmental Toxicity	REPRODUCTION: Iodosulfuron-methyl-sodium was not a reproductive toxicant at non-maternally toxic dose levels in a multi-generation study in rats. DEVELOPMENTAL TOXICITY: Iodosulfuron-methyl-sodium is not a primary developmental toxicant in laboratory animals. Slight developmental effects were observed in conjunction with maternal toxicity only at the limit dose (1000 mg/kg) in rats.
Neurotoxicity	Iodosulfuron-methyl-sodium did not demonstrate the potential to cause neurotoxicity in standard toxicity studies using laboratory animals.
Mutagenicity	Iodosulfuron-methyl-sodium is not considered genotoxic based on in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION



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Toxicity to Fish	Cyprinus carpio (Carp) LC50: 117 mg/l Exposure time: 96 h
Toxicity to Aquatic Plants	Pseudokirchneriella subcapitata EC50: 0.192 mg/l Exposure time: 72 h
Acute Toxicity to Aquatic Invertebrates	Water flea (Daphnia magna) EC50: 16.4 mg/l Exposure time: 48 h
Environmental Precautions	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 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. Apply this product as specified on the label.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance	Do not contaminate water, food, or feed by disposal. 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.
Container Disposal	Triple rinse containers. If burned, stay out of smoke. 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.

SECTION 14. TRANSPORT INFORMATION

DOT CLASSIFICATION:
 UN3077, Environmentally Hazardous Substances, Solid, N.O.S. (Iodosulfuron-methyl-sodium), 9, PG III, Marine Pollutant

IMDG CLASSIFICATION:
 UN3077, Environmentally Hazardous Substances, Solid, N.O.S. (Iodosulfuron-methyl-sodium 10%), 9, PG III, Marine Pollutant

FREIGHT CLASSIFICATION:
 Compounds, Tree or Weedkilling, N.O.I., other than poison; Having a density of greater than 20 LBS. per cubic foot



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SECTION 15. REGULATORY INFORMATION

EPA Registration No. 264-856

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

None.

Canadian Regulations

Canadian Domestic Substance List

None.

Environmental

CERCLA

None.

Clean Water Section 307 Priority Pollutants

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 1 Reactivity - 1 Others - none

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason to Revise: Updated Section 3: Hazards Identification; Updated Section 5: Fire Fighting Measures; Updated Section 11: Toxicological Informaiton; Updated Section 14: Transport Information.



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