

SAFETY DATA SHEET



AUTUMN™ SUPER 51 WDG HERBICIDE

Version 3.0 / USA
102000022412

1/12
Revision Date: 06/21/2022
Print Date: 06/22/2022

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

Product identifier

Trade name AUTUMN™ SUPER 51 WDG HERBICIDE
Product code (UVP) 79653794
SDS Number 102000022412
EPA Registration No. 264-1134

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 LP
800 North Lindbergh Blvd.
St. Louis, MO 63167
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

Eye irritation: Category 2B

Labelling in accordance with regulation HCS 29CFR §1910.1200

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.

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Hazards Not Otherwise Classified (HNOC)

No physical hazards not otherwise classified.
No health hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Thiocarbazone-methyl	317815-83-1	45.0
Iodosulfuron-methyl-sodium	144550-36-7	6.0
Alkyl-naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	68425-94-5	13.5
Aromatic hydrocarbons, C10-13, reaction products with branched nonene, sulfonated, sodium salts	1258274-08-6	4.5

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	No symptoms known or expected.
Indication of any immediate medical attention and special treatment needed	

Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.
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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	In the event of fire the following may be released:, Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Carbon dioxide (CO ₂), Hydrogen iodide (HI), Hydrogen sulphide (H ₂ S), Nitrogen oxides (NO _x)
Advice for firefighters	
Special protective equipment for firefighters	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
Further information	Extinguishing measures to suit surroundings. Fight fire from upwind position. Keep out of smoke. Do not allow run-off from fire fighting to enter drains or water courses.

Specific hazards from the substance or mixture which can increase the fire

Flash point	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Explosivity	Not explosive 92/69/EEC, A.14 / OECD 113

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	Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.
Additional advice	If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal. Do not allow product to contact non-target plants. Use personal protective equipment.

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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 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 original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from direct sunlight.

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

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Thiencarbazone-methyl	317815-83-1	10 mg/m ³ (TWA)		OES BCS*
Iodosulfuron-methyl-sodium	144550-36-7	1 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "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 gloves (barrier laminate, butyl rubber, nitrile rubber or Viton)

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Eye protection	Tightly fitting safety goggles
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

Information on basic physical and chemical properties

Form	water-dispersible granules
Colour	light brown
Odour	characteristic
Odour Threshold	No data available
pH	9.0 - 10.0 (1 %) (23 °C) (deionized water)
Melting point/range	No data available
Boiling Point	No data available
Flash point	No data available
Flammability	The product is not highly flammable.
Auto-ignition temperature	No data available
Ignition temperature	397 °C / 746.6 °F
Minimum ignition energy	No data available
Self-accelarating decomposition temperature (SADT)	No data available
Upper explosion limit	No data available
Lower explosion limit	No data available
Vapour pressure	No data available
Evaporation rate	No data available
Relative vapour density	No data available
Relative density	No data available
Density	No data available
Bulk density	0.605 - 0.710 g/ml (loose)
Water solubility	dispersible
Partition coefficient: n-	Thiencarbazone-methyl: log Pow: -0.13

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octanol/water	Iodosulfuron-methyl-sodium: log Pow: -0.7
Viscosity, dynamic	No data available
Viscosity, kinematic	No data available
Oxidizing properties	No oxidizing properties
Explosivity	Not explosive 92/69/EEC, A.14 / OECD 113
Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
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 incompatible materials known.
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Ingestion, Skin Absorption, Eye contact, Inhalation
Immediate Effects	
Eye	May cause temporary eye irritation.
Skin	May be harmful in contact with skin.
Ingestion	May be harmful if swallowed.
Inhalation	Not expected to produce significant adverse effects when recommended use instructions are followed.
Information on toxicological effects	
Acute oral toxicity	LD50 (Rat) > 2,000 mg/kg
Acute inhalation toxicity	LC50 (Rat) > 5.0 mg/l Exposure time: 4 h Determined in the form of a respirable aerosol.

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Acute dermal toxicity	LD50 (Rat) > 2,000 mg/kg
Skin corrosion/irritation	No skin irritation (Rabbit)
Serious eye damage/eye irritation	Irritating to eyes. (Rabbit)
Respiratory or skin sensitisation	Skin: Non-sensitizing. (Mouse) OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment STOT Specific target organ toxicity – single exposure

Thiencarbazone-methyl: Based on available data, the classification criteria are not met.
Iodosulfuron-methyl-sodium: Based on available data, the classification criteria are not met.

Assessment STOT Specific target organ toxicity – repeated exposure

Thiencarbazone-methyl did not cause specific target organ toxicity in experimental animal studies.
Iodosulfuron-methyl-sodium did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Thiencarbazone-methyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Iodosulfuron-methyl-sodium was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Thiencarbazone-methyl was not carcinogenic in a lifetime feeding study in rats. Thiencarbazone-methyl caused at high dose levels an increased incidence of tumours in mice in the following organ(s): urinary bladder. The tumours seen with Thiencarbazone-methyl were caused through the chronic irritation due to the presence of bladder stones.
Iodosulfuron-methyl-sodium was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

None.

NTP

None.

IARC

None.

Assessment toxicity to reproduction

Thiencarbazone-methyl did not cause reproductive toxicity in a two-generation study in rats.
Iodosulfuron-methyl-sodium did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Thiencarbazone-methyl did not cause developmental toxicity in rats and rabbits.
Iodosulfuron-methyl-sodium did not cause developmental toxicity in rats and rabbits.

Aspiration hazard

Based on available data, the classification criteria are not met.

Further information

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

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SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) > 100 mg/l Exposure time: 96 h
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) > 98.6 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient thiencazone-methyl. EC50 (Daphnia magna (Water flea)) > 100 mg/l Exposure time: 48 h The value mentioned relates to the active ingredient iodosulfuron-methyl-sodium.
Toxicity to aquatic plants	IC50 (Raphidocelis subcapitata (freshwater green alga)) 1.017 mg/l Growth rate; Exposure time: 72 h The value mentioned relates to the active ingredient thiencazone-methyl. IC50 (Lemna gibba (gibbous duckweed)) 0.00131 mg/l Growth rate; Exposure time: 7 d The value mentioned relates to the active ingredient thiencazone-methyl. IC50 (Raphidocelis subcapitata (freshwater green alga)) 0.152 mg/l Growth rate; Exposure time: 96 h The value mentioned relates to the active ingredient iodosulfuron-methyl-sodium. IC50 (Lemna gibba (gibbous duckweed)) 0.00081 mg/l Growth rate; Exposure time: 14 d The value mentioned relates to the active ingredient iodosulfuron-methyl-sodium.
Biodegradability	Thiencazone-methyl: Not rapidly biodegradable Iodosulfuron-methyl-sodium: Not rapidly biodegradable
Koc	Thiencazone-methyl: Koc: 100 Iodosulfuron-methyl-sodium: Koc: 45
Bioaccumulation	Thiencazone-methyl: Does not bioaccumulate. Iodosulfuron-methyl-sodium: Does not bioaccumulate.
Mobility in soil	Thiencazone-methyl: Moderately mobile in soils Iodosulfuron-methyl-sodium: Mobile in soils

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Results of PBT and vPvB assessment

PBT and vPvB assessment Thiencarbazone-methyl: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Iodosulfuron-methyl-sodium: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

Additional ecological information No other effects to be mentioned.

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.
Drift or runoff from treated areas may adversely affect non-target plants.
Do not apply when weather conditions favor runoff or drift.
Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product Dispose in accordance with all local, state/provincial and federal regulations.

Contaminated packaging Consult state and local regulations regarding the proper disposal of container.
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

IMDG

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

IATA

UN number **3077**

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Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (THIENCARBAZONE-METHYL 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. 264-1134

US Federal Regulations

TSCA list

Calcium carbonate	1317-65-3
Alkyl naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	68425-94-5
Polyvinylpyrrolidone	9003-39-8

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

No export notification needs to be made.

SARA Title III - Section 302 - Notification and Information

Not applicable.

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

Calcium carbonate	1317-65-3	MN, RI
Polyvinylpyrrolidone	9003-39-8	CA

Environmental

CERCLA

None.

Clean Water Section 307(a)(1)

None.

Safe Drinking Water Act Maximum Contaminant Levels

None.

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EPA/FIFRA Information:

This chemical is a pesticide product regulated 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. Causes moderate eye irritation.

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

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: The following sections have been revised: Section 11: Toxicological Information. Section 15: Regulatory information. Reviewed and updated for general editorial purposes.

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Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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