



Material Safety Data Sheet

CELSIUS™ WG HERBICIDE

MSDS Number: 102000022858

MSDS Version 1.0

Revision Date: 08/28/2009

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name CELSIUS™ WG HERBICIDE
MSDS Number 102000022858
EPA Registration No. 432-1507

Bayer Environmental Science
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: 1-800-331-2867

SECTION 2. HAZARDS IDENTIFICATION

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

Emergency Overview Caution! Moderate eye irritation. Avoid contact with skin, eyes and clothing.
Wash thoroughly with soap and water after handling.

Physical State dry, free flowing, water dispersible granules

Odor characteristic

Appearance beige

Routes of Exposure Eye contact, Skin contact, Ingestion

Immediate Effects

Eye May cause eye irritation. Do not get in eyes.

Ingestion May be harmful if swallowed.



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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average % by Weight</u>
Dicamba	1918-00-9	57.40
Iodosulfuron-methyl-sodium	144550-36-7	1.90
Thiencarbazone-methyl	317815-83-1	8.70
Sodium dioctyl sulphosuccinate	577-11-7	
Sulphonated aromatic polymer, sodium salt		
Sodium hydroxide	1310-73-2	

SECTION 4. FIRST AID MEASURES

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. Do not leave victim unattended.
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 Treatment	Treat symptomatically. There is no specific antidote.

SECTION 5. FIRE FIGHTING MEASURES

Fire and Explosion Hazards	In the event of fire the following may be released: Hydrogen chloride (HCl) Carbon dioxide (CO2) Carbon monoxide (CO) Sulphur oxides
Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.



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Fire Fighting Instructions Keep out of smoke. Fight fire from upwind position. Whenever possible, contain fire-fighting water by diking area with sand or earth. 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 Keep unauthorized people away. Isolate hazard area. Avoid contact with spilled product or contaminated surfaces.

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. Decontaminate tools and equipment following cleanup.

Additional Advice Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal. Do not allow product to contact vegetation.

SECTION 7. HANDLING AND STORAGE

Handling Procedures Maintain exposure levels below the exposure limit through the use of general and local exhaust ventilation. Handle and open container in a manner as to prevent spillage.

Keep away from heat and sources of ignition.

Storing Procedures Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Work/Hygienic Procedures 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. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Min/Max Storage Temperatures Recommended minimum transport/storage temperature: -10 °C / 14 °F
Recommended maximum transport/storage temperature: 40 °C / 104 °F

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General Protection Follow all label instructions. Train employees in safe use of the product.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such



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instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

- Eye/Face Protection** Safety glasses with side-shields
- Hand protection** Chemical resistant 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.

Exposure Limits

Iodosulfuron-methyl-sodium	144550-36-7	OES BCS*	TWA	1 mg/m3
Dicamba	1918-00-9	TX ESL TX ESL	ST ESL AN ESL	100 ug/m3 10 ug/m3

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** beige
- Physical State** dry, free flowing, water dispersible granules
- Odor** characteristic
- pH** 8.0 - 9.5 (1 %) at 23 °C
Measuring at room temperature 23 °C ± 3 °C

SECTION 10. STABILITY AND REACTIVITY

- Incompatibility** no data available
- Hazardous Reactions** No hazardous reactions known.
- Chemical Stability** Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

- Acute Oral Toxicity** female rat: LD50: > 5,000 mg/kg



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

Acute Inhalation Toxicity male/female combined rat: LC50: > 2.54 mg/l
Exposure time: 4 h
Determined in the form of dust.

male/female combined rat: LC50: > 10.2 mg/l
Exposure time: 1 h
Determined in the form of dust.
Extrapolated from the 4 hr LC50.

Skin Irritation rabbit: Slight irritation.

Eye Irritation rabbit: Moderate eye irritation.

Chronic Toxicity Dicamba did not target any organs in chronic toxicity studies in rats and dogs.

Iodosulfuron-methyl-sodium caused body weight changes in rats and minimal to moderate hematopoietic hyperplasia and increased cholesterol in dogs.

Thiencarbazone-methyl caused urinary tract irritation in long term studies in mice, rats and dogs.

Assessment Carcinogenicity

Dicamba was not carcinogenic in lifetime feeding studies in rats and mice. EPA has classified dicamba "not likely to be carcinogenic to humans."

Iodosulfuron-methyl-sodium was not carcinogenic in lifetime feeding studies in rats and mice.

Thiencarbazone-methyl was not carcinogenic in a lifetime feeding study in rats. In a lifetime feeding study in mice, there was a low incidence of urinary bladder tumors at high doses secondary to the chronic irritation due to the presence of bladder stones. Thiencarbazone-methyl was considered not to be directly carcinogenic in mice.

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Reproductive toxicity REPRODUCTION: Dicamba was not a primary reproductive toxicant in a two-generation reproduction study in rats. Reproductive effects were observed only at doses that caused parental systemic toxicity. Offspring toxicity was manifested at a dose lower than parental systemic toxicity.

DEVELOPMENTAL TOXICITY: Dicamba was not a primary developmental toxicant in rats and rabbits. Developmental effects were observed in rabbits but



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were considered secondary to maternal 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.

REPRODUCTION: Thien carbazone-methyl was not a reproductive toxicant in a two-generation study in rats. Thien carbazone-methyl caused toxicity in offspring at doses producing systemic toxicity in adult rats.

DEVELOPMENTAL TOXICITY: Thien carbazone-methyl was not a primary developmental toxicant in rats and rabbits. Developmental effects were observed but were considered secondary to maternal toxicity.

Neurotoxicity

Dicamba has demonstrated the potential to cause neurotoxicity at high doses in laboratory animals.

Iodosulfuron-methyl-sodium did not demonstrate the potential to cause neurotoxicity in standard toxicity studies using laboratory animals.

Thien carbazone-methyl was not a neurotoxicant in acute and subchronic neurotoxicity screening studies in rats.

Mutagenicity

Dicamba did not demonstrate evidence of mutagenic potential, although, some positive results have been reported in the published literature.

Iodosulfuron-methyl-sodium is not considered genotoxic based on in vitro and in vivo tests.

Thien carbazone-methyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

SECTION 12. ECOLOGICAL INFORMATION

Environmental Precautions

Drift or runoff from treated areas may adversely affect non-target plants. Do not apply when weather conditions favor runoff or drift. Do not allow to get into surface water, drains and ground water. 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.



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SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Dispose in accordance with all local, state/provincial and federal regulations. Do not dispose of waste into sewer. Follow advice on product label and/or leaflet.

Container Disposal Triple rinse containers. Add washings to sprayer at time of filling. Puncture container to avoid re-use. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

DOT CLASSIFICATION:
Not regulated for transport in the US

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

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 432-1507

US Federal Regulations

TSCA list

Sodium dioctyl sulphosuccinate 577-11-7
Sulphonated aromatic polymer, sodium salt
Sodium hydroxide 1310-73-2

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

Dicamba 1918-00-9 1.0%

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

Dicamba 1918-00-9 CA, CT, IL, NJ, PA
Sodium hydroxide 1310-73-2 CA, CT, IL, MN, PA, RI

Canadian Regulations

Canadian Domestic Substance List

Sodium dioctyl sulphosuccinate 577-11-7



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Sulphonated aromatic polymer, sodium salt
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Environmental

CERCLA

Dicamba 1918-00-9 1,000 lbs
Sodium hydroxide 1310-73-2 1,000 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)

Sodium hydroxide 1310-73-2

SECTION 16. OTHER INFORMATION

NFPA 704 (National Fire Protection Association):

Health - 1 Flammability - 1 Reactivity - 0 Others - none

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

Reason to Revise: New Material Safety Data Sheet.

Revision Date: 08/28/2009

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