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

Product identifier
- Trade name: CELSIUS® WG HERBICIDE
- Product code (UVP): 79690630
- SDS Number: 102000022858
- EPA Registration No.: 432-1507

Relevant identified uses of the substance or mixture and uses advised against
- Use: Herbicide
- Restrictions on use: See product label for restrictions.

Information on manufacturer
- Bayer Environmental Science
  2 T.W. Alexander Drive
  Research Triangle PK, NC 27709
  United States
- Emergency Telephone Number (24hr/7 days): 1-800-334-7577 (24 hours/day)
- Product Information Telephone Number: 1-800-331-2867
- SDS Information or Request: SDSINFO.BCS-NA@bayer.com

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200
- Eye irritation: Category 2B
- 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.

Other hazards
- No other hazards known.
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Component Name</th>
<th>CAS-No.</th>
<th>Average % by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thiencarbazone-methyl</td>
<td>317815-83-1</td>
<td>8.70</td>
</tr>
<tr>
<td>Iodosulfuron-methyl-sodium</td>
<td>144550-36-7</td>
<td>1.90</td>
</tr>
<tr>
<td>Dicamba</td>
<td>1918-00-9</td>
<td>57.40</td>
</tr>
<tr>
<td>Naphthalene and alkyl naphthalene sulphonic acids formaldehyde condensate, sodium salt</td>
<td>68425-94-5</td>
<td>8.50</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>12.00</td>
</tr>
<tr>
<td>Anionic tenside</td>
<td></td>
<td>1.60</td>
</tr>
</tbody>
</table>

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. Get medical attention if irritation develops and persists.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

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. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable
Water spray, Carbon dioxide (CO2), Foam, Sand

Unsuitable
None known.
Special hazards arising from the substance or mixture

In the event of fire the following may be released: Hydrogen chloride (HCl), Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Sulphur oxides, Nitrogen oxides (NOx)

Advice for firefighters

Special protective equipment for fire-fighters

Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.

Further information

Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

Flash point

> 101 °C

Autoignition temperature

no data available

Lower explosion limit

not applicable

Upper explosion limit

not applicable

Explosivity

no data available

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. 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 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.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Use only in area provided with appropriate exhaust ventilation.

Hygiene measures

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. Wash hands thoroughly with soap and water after handling and before
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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
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<tbody>
<tr>
<td>Thiencarbazone-methyl</td>
<td>317815-83-1</td>
<td>10 mg/m³</td>
<td>OES BCS*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(OES BCS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iodosulfuron-methyl-sodium</td>
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<td>1 mg/m³</td>
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<td></td>
<td></td>
<td>(TWA)</td>
<td></td>
<td></td>
</tr>
<tr>
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<td>50ug/m³</td>
<td>07 2011</td>
<td>TX ESL</td>
</tr>
<tr>
<td>(Particulate.)</td>
<td></td>
<td>(ST ESL)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dicamba</td>
<td>1918-00-9</td>
<td>5ug/m³</td>
<td>07 2011</td>
<td>TX ESL</td>
</tr>
<tr>
<td>(Particulate.)</td>
<td></td>
<td>(AN ESL)</td>
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<tr>
<td>Dicamba</td>
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<td>50ug/m³</td>
<td>07 2011</td>
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<td>(ST ESL)</td>
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<td>5ug/m³</td>
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</tr>
</tbody>
</table>

*OES BCS* = Occupational Exposure Limit System - Baseline Criteria System
*TWA* = Time Weighted Average
*REL* = Recommended Exposures Limit
*ST ESL* = State Standard - Externally Set Limit
*AN ESL* = Nationally Administered - Externally Set Limit
*OSHA Z1* = Occupational Safety and Health Administration - Z1
*OSHA Z1A* = Occupational Safety and Health Administration - Z1A
*TN OEL* = Tennessee OEL
*US CA OEL* = California OEL
*ACGIH* = American Conference of Governmental Industrial Hygienists
*NIOSH* = National Institute for Occupational Safety and Health

eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
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 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 beige
Physical State water-dispersible granules
Odor characteristic
Odour Threshold no data available
pH: 8.0 - 9.5 at 10 % (23 °C) (deionized water)

Vapor Pressure: no data available

Vapor Density (Air = 1): no data available

Bulk density: 0.644 - 0.756 g/ml (loose)

Evaporation rate: no data available

Boiling Point: not applicable

Melting / Freezing Point: not applicable

Water solubility: dispersible

Minimum Ignition Energy: no data available

Partition coefficient: n-octanol/water: no data available

Viscosity: not applicable

Flash point: > 101 °C

Autoignition temperature: no data available

Lower explosion limit: not applicable

Upper explosion limit: not applicable

Explosivity: no data available

Other information: Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition: 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: Store only in the original container.

Hazardous decomposition products: No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION
### Exposure routes
- Eye contact, Skin contact, Ingestion

### Immediate Effects
#### Eye
- Moderate eye irritation.

#### Ingestion
- Harmful if swallowed.

### Information on toxicological effects

#### Acute oral toxicity
- LD50 (female rat) > 5,000 mg/kg

#### Acute inhalation toxicity
- LC50 (male/female combined rat) > 2.54 mg/l
  - Exposure time: 4 h
  - Determined in the form of a respirable fine dust.
  - Highest attainable concentration.
  - During intended and foreseen applications, no respirable aerosol is formed.

#### Acute dermal toxicity
- LD50 (male/female combined rat) > 5,000 mg/kg

#### Skin irritation
- No skin irritation (rabbit)

#### Eye irritation
- Moderate eye irritation. (rabbit)

#### Sensitisation
- Non-sensitizing. (guinea pig)
  - OECD Test Guideline 406, Buehler test

### Assessment repeated dose toxicity
- Dicamba 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.
- Thiencarbazone-methyl did not cause specific target organ toxicity in experimental animal studies.

### Assessment Mutagenicity
- Dicamba 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.
- Thiencarbazone-methyl was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

### Assessment Carcinogenicity
- Dicamba was not carcinogenic in lifetime feeding studies in rats and mice.
- Iodosulfuron-methyl-sodium was not carcinogenic in lifetime feeding studies in rats and mice.
- 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.

### ACGIH
- None.

### NTP
- None.

### IARC
- None.

### OSHA
- None.
Assessment toxicity to reproduction

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

Assessment developmental toxicity

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

Further information

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

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish
(Oncorhynchus mykiss (rainbow trout)) > 100 mg/l

Toxicity to aquatic invertebrates
(Water flea (Daphnia magna)) > 10 mg/l

Toxicity to aquatic plants
EC50 (Lemna gibba (duckweed)) < 0.1 mg/l
Exposure time: 7 d

Biodegradability
Not applicable for this mixture.

Bioaccumulation
Not applicable for this mixture.

Mobility in soil
Not applicable for this mixture.

Additional ecological information
No other effects to be mentioned.

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 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.
Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product
In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant.

Contaminated packaging
Do not re-use empty containers.
Triple rinse containers.
Empty residue into application equipment.
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
UN number 3077
Class 9
Packaging group III
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.
(DICAMBA, SODIUM HYDROXIDE)

RQ
Reportable Quantity is reached with 1,742 lb of product.

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

IATA
UN number 3077
Class 9
Packaging group III
Environn. Hazardous Mark YES
Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(THIENCARBAZONE-METHYL, IODOSULFURON-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.

Freight Classification: COMPOUNDS, TREE OR WEEDKILLING, N.O.I., other than poison; HAVING A DENSITY OF GREATER THAN 20 LBS. PER CUBIC FOOT
SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-1507
US Federal Regulations
TSCA list
Naphthalene and alkyl naphthalene 68425-94-5
sulphonic acids formaldehyde condensate, 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, NJ
Sodium hydroxide 1310-73-2 CA, CT, MN

Canadian Regulations
Canadian Domestic Substance List
Naphthalene and alkyl naphthalene 68425-94-5
sulphonic acids formaldehyde condensate, sodium salt
Sodium hydroxide 1310-73-2

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)
Dicamba 1918-00-9
Sodium hydroxide 1310-73-2

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:**
- Moderate eye irritation.
- Avoid contact with skin, eyes and clothing.
- Harmful if swallowed.
- Wash thoroughly with soap and water after handling.

### SECTION 16: OTHER INFORMATION

**NFPA 704 (National Fire Protection Association):**
- Health - 1
- Flammability - 1
- Instability - 0
- Others - none

- 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:** Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

**Revision Date:** 05/27/2014

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.