# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
US - OSHA Hazard Communication Standard (29 CFR 1910.1200)

**Issuing Date** 08-Mar-2023 **Revision Date** 08-Mar-2023 **Revision Number** 1

## 1. Identification

**Product identifier**

**Product Name** Willowood Clomazone 5G

**Other means of identification**

**Product Code(s)** 87290-46

**Synonyms** None

**Recommended use of the chemical and restrictions on use**

**Recommended use** Herbicide

**Restrictions on use** Use only as directed on product label

**Details of the supplier of the safety data sheet**

**Manufacturer Address**
Generic Crop Science, LLC
1887 Whitney Mesa Drive #9740
Henderson, NV 89014-2069
1-844-200-FARM (3276)

**E-mail** regulatory@genericcropscience.com

**Emergency telephone number**

**Emergency telephone** CHEMTREC: +1-703-527-3887 (INTERNATIONAL)
1-800-424-9300 (NORTH AMERICA)
24/7 Health Emergencies: Call 800-858-7378 (National Pesticide Information Center)

## 2. Hazard(s) identification

**Classification**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Hazards not otherwise classified (HNOC)**
Not applicable.

**Label elements**

**Hazard statements**
Not classified.

**Other information**

Causes mild skin irritation. Toxic to aquatic life with long lasting effects. Toxic to aquatic life.

## 3. Composition/information on ingredients

**Substance**

Not applicable.

**Mixture**

| Chemical name | CAS No | Weight-% | Trade secret |
|---|---|---|---|
| Bentonite | 1302-78-9 | 70 - 80 | * |
| Clomazone | 81777-89-1 | 5 - 10 | * |
| .gamma.-Butyrolactone | 96-48-0 | 1 - 5 | * |
| Solvent naphtha (petroleum), light arom. | 64742-95-6 | 1 - 5 | * |
| Sodium nitrate | 7631-99-4 | 0.5 - < 1 | * |
| Hexamethylenediamine | 124-09-4 | 0.1 - 0.5 | * |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

## 4. First-aid measures

**Description of first aid measures**

**Inhalation** Remove to fresh air.

**Eye contact** Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention if symptoms occur.

**Skin contact** Wash skin with soap and water. Get medical attention if symptoms occur.

**Ingestion** Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get medical attention if symptoms occur.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Prolonged contact may cause redness and irritation.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Dry chemical, CO2, water spray or regular foam.
**Large Fire** Water spray, fog or regular foam.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical** None known based on information supplied.

**Hazardous combustion products** Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx), Halogenated compounds, Metal oxides.

**Explosion data**

**Sensitivity to mechanical impact** None.
**Sensitivity to static discharge** None.

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation. Avoid generation of dust. Avoid breathing dust. Do not touch or walk through spilled material. Use personal protective equipment as required.

**Methods and material for containment and cleaning up**

**Methods for containment** Stop leak if you can do it without risk.

**Methods for cleaning up** Avoid generation of dust. Cover powder spill with plastic sheet or tarp to minimize spreading. Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

## 7. Handling and storage

**Precautions for safe handling**

**Advice on safe handling** Avoid generation of dust. Avoid breathing dust. Avoid contact with skin, eyes or clothing. Wear personal protective equipment.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

## 8. Exposure controls/personal protection

**Control parameters**

**Exposure Limits** The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH |
|---|---|---|---|
| Bentonite<br>1302-78-9 | TWA: 1 mg/m$^3$ respirable particulate matter | - | - |
| Hexamethylenediamine<br>124-09-4 | TWA: 0.5 ppm | - | - |

**Appropriate engineering controls**

| | |
|---|---|
| **Engineering controls** | Showers<br>Eyewash stations<br>Ventilation systems. |

**Individual protection measures, such as personal protective equipment**

| | |
|---|---|
| **Eye/face protection** | Wear safety glasses with side shields (or goggles). |
| **Hand protection** | Wear suitable gloves. |
| **Skin and body protection** | Wear suitable protective clothing. |
| **Respiratory protection** | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |
| **General hygiene considerations** | Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. |

## 9. Physical and chemical properties

**Information on basic physical and chemical properties**

| | |
|---|---|
| **Appearance** | Light brown granules |
| **Physical state** | Solid |
| **Color** | Light brown |
| **Odor** | Mildly sweet |
| **Odor threshold** | No data available |

| Property | Values | Remarks • Method |
|---|---|---|
| **pH** | 5.89 | solution (1 %) |
| **pH (as aqueous solution)** | | No data available |
| **Melting point / freezing point** | | No data available |
| **Initial boiling point and boiling range** | | No data available |
| **Flash point** | | No data available |
| **Evaporation rate** | | No data available |
| **Flammability** | | No data available |
| **Flammability Limit in Air** | | |
| **Upper flammability or explosive limits** | | No data available |
| **Lower flammability or explosive limits** | | No data available |
| **Vapor pressure** | | No data available |
| **Vapor density** | | No data available |
| **Relative density** | | No data available |
| **Water solubility** | | No data available |
| **Solubility(ies)** | | No data available |
| **Partition coefficient** | | No data available |
| **Autoignition temperature** | | No data available |
| **Decomposition temperature** | | No data available |
| **Kinematic viscosity** | | No data available |
| **Dynamic viscosity** | | No data available |

**Other information**

| | |
|---|---|
| **Explosive properties** | No information available |
| **Oxidizing properties** | No information available |
| **Softening point** | No information available |
| **Molecular weight** | No information available |
| **VOC content** | No information available |
| **Liquid Density** | No information available |

**Bulk density** 0.897 g/cm$^3$

## 10. Stability and reactivity

**Reactivity** None under normal use conditions.

**Chemical stability** Stable under normal conditions.

**Possibility of hazardous reactions** None under normal processing.

**Conditions to avoid** Incompatible materials. Dust formation.

**Incompatible materials** Strong oxidizing agents.

**Hazardous decomposition products** None known based on information supplied.

## 11. Toxicological information

**Information on likely routes of exposure**

**Product Information**

**Inhalation** Specific test data for the substance or mixture is not available. Inhalation of dust in high concentration may cause irritation of respiratory system.

**Eye contact** Specific test data for the substance or mixture is not available. Dust contact with the eyes can lead to mechanical irritation.

**Skin contact** Specific test data for the substance or mixture is not available. Causes mild skin irritation.

**Ingestion** Specific test data for the substance or mixture is not available.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Prolonged contact may cause redness and irritation.

**Acute toxicity**

**Numerical measures of toxicity**

**Component Information**

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|---|---|
| Bentonite<br>1302-78-9 | > 5000 mg/kg ( Rat ) | - | - |
| Clomazone<br>81777-89-1 | = 1369 mg/kg ( Rat ) | > 2000 mg/kg ( Rabbit ) | = 4800 mg/m$^3$ ( Rat ) 4 h |
| .gamma.-Butyrolactone<br>96-48-0 | = 1540 mg/kg ( Rat ) | > 5640 mg/kg ( Rabbit ) | > 5100 mg/m$^3$ ( Rat ) 4 h |
| Solvent naphtha (petroleum), light arom.<br>64742-95-6 | = 8400 mg/kg ( Rat ) | > 2000 mg/kg ( Rabbit ) | = 3400 ppm ( Rat ) 4 h |
| Sodium nitrate<br>7631-99-4 | = 1267 mg/kg ( Rat ) | - | - |

| | | | |
|---|---|---|---|
| Hexamethylenediamine<br>124-09-4 | = 750 mg/kg ( Rat ) | = 1110 mg/kg ( Rabbit ) | - |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Skin corrosion/irritation** Classification based on data available for ingredients. Causes mild skin irritation.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** IARC has classified ingested nitrate and nitrite ions as Group 2A carcinogens, for which food and water are the major pathways of human exposure. Individual nitrate and nitrite compounds were not evaluated individually. Based on available data, the classification criteria are not met.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name | ACGIH | IARC | NTP | OSHA |
|---|---|---|---|---|
| .gamma.-Butyrolactone<br>96-48-0 | - | Group 3 | - | - |
| Sodium nitrate<br>7631-99-4 | - | Group 2A | - | X |

**Legend**

**IARC (International Agency for Research on Cancer)**
Group 2A - Probably Carcinogenic to Humans
Group 3 - Not Classifiable as to Carcinogenicity in Humans
**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**
X - Present

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**Other adverse effects** No information available.

**Interactive effects** No information available.

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

| Chemical name | Algae/aquatic plants | Fish | Toxicity to microorganisms | Crustacea |
|---|---|---|---|---|
| Bentonite<br>1302-78-9 | - | LC50: =19000mg/L (96h, Oncorhynchus mykiss) | - | - |
| .gamma.-Butyrolactone<br>96-48-0 | EC50: =360mg/L (72h, Desmodesmus subspicatus)<br>EC50: =79mg/L (96h, Desmodesmus subspicatus) | LC50: =56mg/L (96h, Lepomis macrochirus) | - | EC50: >500mg/L (48h, Daphnia magna Straus) |
| Solvent naphtha (petroleum), | - | LC50: =9.22mg/L (96h, | - | EC50: =6.14mg/L (48h, |

| | | | | |
|---|---|---|---|---|
| light arom.<br>64742-95-6 | | Oncorhynchus mykiss) | | Daphnia magna) |
| Sodium nitrate<br>7631-99-4 | - | LC50: =2000mg/L (96h, Lepomis macrochirus)<br>LC50: 994.4 - 1107mg/L (96h, Oncorhynchus mykiss) | - | - |
| Hexamethylenediamine<br>124-09-4 | EC50: =15mg/L (72h, Pseudokirchneriella subcapitata)<br>EC50: =14.8mg/L (96h, Pseudokirchneriella subcapitata) | LC50: >56mg/L (96h, Lepomis macrochirus)<br>LC50: =1825mg/L (96h, Pimephales promelas) | - | EC50: =23.4mg/L (48h, Daphnia magna) |

**Persistence and degradability** No information available.

**Bioaccumulation**

**Component Information**

| Chemical name | Partition coefficient |
|---|---|
| .gamma.-Butyrolactone<br>96-48-0 | -0.566 |
| Sodium nitrate<br>7631-99-4 | -3.8 |
| Hexamethylenediamine<br>124-09-4 | 0.02 |

**Other adverse effects** No information available.

## 13. Disposal considerations

**Waste treatment methods**

**Waste from residues/unused products** Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**California Hazardous Waste Status** This product contains one or more substances that are listed with the State of California as a hazardous waste.

## 14. Transport information

**DOT** Not regulated

**IATA** Not regulated in quantities less than 5 kilograms per individual container. See IATA SP A197

**UN number or ID number** UN3077
**UN proper shipping name** Environmentally hazardous substance, solid, n.o.s.
**Transport hazard class(es)** 9
**Packing group** III
**IATA Technical Name** Clomazone
**Special Provisions** A97, A158, A179, A197, A215
**Description** UN3077, Environmentally hazardous substance, solid, n.o.s. (Clomazone), 9, III
**ERG Code** 9L

**IMDG** Not regulated in quantities less than 5 kilograms per individual container. See IMDG

| | |
|---|---|
| | 2.10.2.7 |
| **UN number or ID number** | UN3077 |
| **UN proper shipping name** | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| **Transport hazard class(es)** | 9 |
| **Packing group** | III |
| **EmS-No** | F-A, S-F |
| **Marine pollutant** | P |
| **Marine pollutant** | Clomazone |
| **Special Provisions** | 274, 335, 966, 967, 969 |
| **Description** | UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Clomazone), 9, III, Marine pollutant |

## 15. Regulatory information

**International Inventories**

Contact supplier for inventory compliance status

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Chemical name | SARA 313 - Threshold Values % |
|---|---|
| Sodium nitrate - 7631-99-4 | 1.0 |

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---|---|---|---|
| Sodium nitrate<br>7631-99-4 | X | X | X |
| Soybean oil<br>8001-22-7 | - | - | X |
| Hexamethylenediamine | X | X | - |

| | | | |
|---|---|---|---|
| 124-09-4 | | | |
| Sodium hydroxide<br>1310-73-2 | X | X | X |
| Glycerin<br>56-81-5 | X | X | X |

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** 87290-46

## 16. Other information

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **NFPA** | **Health hazards** 1 | **Flammability** 0 | **Instability** 0 | **Special hazards** - |
| **HMIS** | **Health hazards** 1 | **Flammability** 0 | **Physical hazards** 0 | **Personal protection** X |

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

| | | | |
|---|---|---|---|
| TWA | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value | * | Skin designation |

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**