Safety Data Sheet - GHS

1. IDENTIFICATION: CHEMICAL PRODUCT AND COMPANY

PRODUCT NAME: Chateau® Complete Herbicide
EPA REGISTRATION NUMBER: 59639-268
PRODUCT CODE: None
VC NUMBER(S): 2164
SYNONYM(S): None

MANUFACTURER/DISTRIBUTOR
VALENT U.S.A. LLC
P.O. Box 5075
4600 Norris Canyon Road
San Ramon, CA 94583

EMERGENCY TELEPHONE NUMBERS
HEALTH EMERGENCY (24 hr):
(800) 892-0099
TRANSPORTATION (24 hr.):
US Transportation: CHEMTREC (800) 424-9300
International Transportation: (703) 741-5970

PRODUCT INFORMATION
AGRICULTURAL PRODUCTS: (800) 682-5368

2. HAZARDS IDENTIFICATION

This material is for research purposes only. To be used only by qualified research personnel.

Classification - (per U.S. OSHA 29 CFR 1910.1200 (Hazcom 2012))

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2 (Bone Marrow)
Acute Aquatic Toxicity	Category 1
Chronic Aquatic Toxicity	Category 1

Label elements

EMERGENCY OVERVIEW

WARNING

Hazard statements
Harmful if inhaled.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure (bone marrow).
Very toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention
Do not breathe dust /mist/spray.
Obtain, read, and follow all safety instructions before use.
Wear protective gloves/protective clothing.
Use only outdoors or in a well-ventilated area.

Response
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF EXPOSED OR CONCERNED: Get medical help if you feel unwell.
Collect spillage.

Storage
Store locked up.

Disposal
Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)
None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Flumioxazin	103361-09-7	50.00
Rimsulfuron	122931-48-0	8.25
Other Ingredients	Various	41.75

Specific information on other ingredients for the management of exposures, spills, or safety assessments can be obtained by a treating physician or nurse by calling **(877) 315-9819.**

4. FIRST AID MEASURES

EMERGENCY NUMBER (800) 892-0099

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 poison control center or doctor for treatment advice.

SKIN CONTACT:
Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

INGESTION:
Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by the poison control center or doctor. Do not give anything to an unconscious person.

INHALATION:
Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

NOTES TO PHYSICIAN:
Treatment is supportive and symptomatic.

5. FIRE FIGHTING MEASURES

Flash point °C Not Determined
Flash point °F Not Determined
EXTINGUISHING MEDIA: Water fog, carbon dioxide, foam, dry chemical

FIRE FIGHTING INSTRUCTIONS: Will not burn but if involved in a fire toxic fumes may be evolved. Avoid breathing smoke and mists. Avoid personnel and equipment contact with fallout and runoff. Minimize the amount of water used for fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Decontaminate personal protective equipment and fire fighting equipment before reuse. Read the entire document.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition or combustion may produce harmful/irritant gas or fumes such as nitrogen oxides, carbon oxides, hydrogen fluoride or organic compounds.

6. ACCIDENTAL RELEASE MEASURES

VALENT EMERGENCY PHONE NUMBER: (800) 892-0099
CHEMTREC EMERGENCY PHONE NUMBER: (800) 424-9300

FOR SPILLS:

CONTAINMENT: Reduce airborne dust. Avoid runoff into storm sewers or other bodies of water.

CLEANUP: Clean up spill immediately. Vacuum or sweep up material and place in a chemical waste container. Wash area with soap and water. Pick up wash liquid with additional absorbent and place in a chemical waste container.

7. HANDLING AND STORAGE

HANDLING:

Do not contaminate food or feed. Do not put material into food or drink containers. Do not dilute material in food or drink containers. Avoid contact with eyes, skin or clothing. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

STORAGE:

Keep pesticide in original container only. Store in a cool, dry place, out of direct sunlight. Do not store or transport near food or feed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS

Chemical name	ACGIH Exposure Limits	OSHA Exposure Limits
Kaolin clay	TWA: 2 mg/m^3 particulate matter containing no asbestos and <1% crystalline silica, respirable particulate matter	PEL: 15 mg/m^3 total dust PEL: 5 mg/m^3 respirable fraction

EYES & FACE: Do not get this material in your eyes. Eye contact can be avoided by wearing protective eyewear.

RESPIRATORY PROTECTION: Use this material only in well ventilated areas. If ventilation is not adequate to keep airborne concentrations below recommended exposure standards, approved respiratory protection should be worn.

SKIN & HAND PROTECTION: Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing including long pants, long-sleeved shirt and shoes plus socks, and chemical-resistant gloves. Remove contaminated clothing. Wash before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:		**Vapor pressure**	Not determined
Physical State	Solid Granules @ 20°C	**Vapor density**	Not determined
Color	Tan	**Specific Gravity**	Not determined
Odor	Faint Vanilla	**Water solubility**	Not determined
pH	4.57 (1% solution)	**Solubility in other solvents**	Not determined
Melting point / freezing point	Not determined	**Partition coefficient**	Not determined
Boiling point / boiling range	Not determined	**Autoignition temperature**	Not determined
Flash point	Not determined	**Decomposition temperature**	Not determined
Evaporation rate	Not determined	**Viscosity**	Not Applicable
Flammability (solid, gas)	Not determined	**Explosive properties**	Not determined
Flammability Limits in Air:		**Oxidizing properties**	Not determined
Upper flammability limits	Not determined	**Liquid Density**	Not determined
Lower flammability limits	Not determined	**Bulk density**	30.4 lb/ft^2

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Extremes of temperature and direct sunlight.

Incompatible materials
May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous Decomposition Products
Thermal decomposition or combustion may product harmful/irritant gas or fume such as nitrogen oxides, carbon oxides, hydrogen fluoride or organic compounds.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

The following information is for this product formulation unless noted differently.

Oral Toxicity LD $_{50}$ (rats)	> 5,000 mg/kg	EPA Tox Category	IV
Dermal Toxicity LD $_{50}$ (rats)	> 5,000 mg/kg	EPA Tox Category	IV
Inhalation Toxicity LC $_{50}$ (rats)	> 2.16 mg/L (4 h)	EPA Tox Category	IV
Eye Irritation (rabbits)	Minimally irritating	EPA Tox Category	IV
Skin Irritation (rabbits)	Slightly irritating	EPA Tox Category	IV
Skin Sensitization (guinea pigs)	Non-sensitizer	EPA Tox Category	Not applicable

FLUMIOXAZIN TECHNICAL:

CHRONIC/CARCINOGENICITY**:** Flumioxazin was not carcinogenic in lifetime feeding studies in rats or mice. The NOAEL following chronic administration by capsule in dog was 10 mg/kg bw/d. NOAELs following chronic administration by feed in rats and mice were 50 ppm and 300 ppm.

DEVELOPMENTAL TOXICITY: Flumioxazin Technical produces developmental toxicity in rats in the absence of maternal toxicity at doses of 30 mg/kg bw/day by the oral route and 300 mg/kg bw/day by the dermal route. No developmental toxicity was noted in rabbits at doses up to 3000 mg/kg bw/day, a dose well above the maternal NOEL of 1000 mg/kg bw/day. Mechanistic studies indicate that the effects seen in the rat are highly unlikely to occur in the human and that flumioxazin would not be a developmental toxicant in the human.

REPRODUCTION: Reproductive toxicity was observed in F1 males, P1 females and F1 females at 300 ppm Flumioxazin Technical, the highest dose tested and a dose that also produced signs of systemic toxicity. Toxicity was also observed in the F1 and F2 offspring at doses of 200 ppm and greater.

MUTAGENICITY: Flumioxazin was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

RIMSULFURON TECHNICAL:

CHRONIC/CARCINOGENICITY**:** Rimsulfuron is classified as “Not Likely to be Carcinogenic to Humans” based on the lack of evidence for carcinogenicity in rats and mice in the long-term carcinogenicity studies. The NOAEL following chronic oral administration in rat, mouse and dog were 11.8, 351, and 81.8 mg/kg bw/d, respectively.

DEVELOPMENTAL TOXICITY: Rimsulfuron Technical did not produce any adverse developmental effects in the rat when dosed up to 6000 mg/kg/d. In the rabbit, the NOAELs for maternal toxicity and fetal effects were 170 and 500 mg/kg bw/d, respectively.

REPRODUCTION: In a 2-generation reproduction study with the rat with Rimsulfuron technical, NOAELs for parental and offspring toxicity were 165 and 217 mg/kg bw/d based systemic toxicity and low body weights, respectively.

MUTAGENICITY: Rimsulfuron Technical was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

12. ECOLOGICAL INFORMATION

While no additional ecotoxicity effects have been determined for this mixture, it is recommended that this material be treated as hazardous material, and precautions be taken to ensure this material is not released into the environment. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark.

FLUMIOXAZIN TECHNICAL:

Oral LD_{50} Bobwhite Quail: greater than 2,250 ppm
Dietary LC_{50} Bobwhite Quail: greater than 5,620 ppm
Dietary LC_{50} Mallard Duck: greater than 5,620 ppm

96-hour LC_{50} Rainbow Trout: 2.3 mg/L
96-hour LC_{50} Bluegill Sunfish: > 21 mg/L
96-hour LC_{50} Sheepshead Minnow: > 4.7 mg/L
48-hour LC_{50} Daphnia magna: > 5.5 mg/L
96-hour (shell deposition) EC_{50} Eastern Oyster: 2.4 mg/L
96-hour LC_{50} Mysid Shrimp: 0.23 mg/L
Fish early life-stage (Rainbow Trout): NOEC >7.7 µg/L, <16 µg/L
Chronic toxicity (Mysid Shrimp): NOEC >15 µg/L, <27 µg/L
Chronic toxicity (Daphnia magna): NOEC > 28 µg/L, < 57 µg/L

5-day EC_{50} Green Algae: 1.02 µg/L
5-day EC_{50} diatom (Navicula pelliculosa): 1.4 µg /L
5-day EC_{50} diatom (Skeletonema costatum): 19.2 µg /L

14-day EC_{50} Duckweed (Lemna gibba): 0.49 µg/L

Honeybee 48-hour contact LD_{50}: > 105 µg/bee

RIMSULFURON TECHNICAL:

Oral LD_{50} Bobwhite Quail: greater than 2,000 ppm
Dietary LC_{50} Bobwhite Quail: greater than 5,620 ppm
Oral LD_{50} Mallard Duck: greater than 2,000 ppm
Dietary LC_{50} Mallard Duck: greater than 5,620 ppm

96-hour LC_{50} Rainbow Trout: > 390 mg/L
96-hour LC_{50} Bluegill Sunfish: > 390 mg/L
96-hour LC_{50} Sheepshead Minnow: > 110 mg/L
48-hour LC_{50} Daphnia magna: > 390 mg/L
96-hour (shell deposition) EC_{50} Eastern Oyster: < 120 mg/L
96-hour LC_{50} Mysid Shrimp: > 110 mg/L

5-day EC_{50} Green Algae: > 29 µg/L
14-day EC_{50} Duckweed (Lemna gibba): 11.6 µg/L

Honeybee 48-hour contact LD_{50}: > 100 µg/bee

OTHER ENVIRONMENTAL INFORMATION:

Environmental Hazards: Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

13. DISPOSAL CONSIDERATIONS

PRODUCT DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure 2 more times.

DISPOSAL METHODS: Check government regulations and local authorities for approved disposal of this material. Dispose of in accordance with applicable laws and regulations.

14. TRANSPORTATION INFORMATION

DOT (ground) SHIPPING NAME: Not regulated for domestic ground transport by US DOT or Canada TDG.

ICAO/IATA SHIPPING NAME:	UN 3077 Environmentally Hazardous Substance, Solid, N.O.S. (Flumioxazin, RIMSULFURON), 9, III, Marine Pollutant
REMARKS:	Single or inner packaging less than 5 L (liquid) or 5 Kg net (solids) excepted from Dangerous Goods regulations – see IATA Special Provision A197
IMDG SHIPPING NAME:	UN 3077, Environmentally Hazardous Substance, Solid, N.O.S. (Flumioxazin, RIMSULFURON), 9, III, Marine pollutant
REMARKS:	Single or inner packaging less than 5 L (liquid) or 5 Kg net (solids) excepted from Dangerous Goods regulations – see IMDG 2.10.2.7

15. REGULATORY INFORMATION

STATE REGULATIONS:

Pennsylvania Right-To-Know

Ammonium Sulfate	CAS# 7783-20-2
Kaolin	CAS# 1332-58-7

New Jersey Right-To-Know

Ammonium Sulfate	CAS# 7783-20-2

Massachusetts Right-to-Know

Ammonium Sulfate	CAS# 7783-20-2
Kaolin	CAS# 1332-58-7

16. OTHER INFORMATION

REASON FOR ISSUE:	New SDS
SDS NO.:	0622
EPA REGISTRATION NUMBER:	59639-268
REVISION NUMBER:	0
REVISION DATE:	04/23/2024
SUPERCEDES DATE:	00/00/0000
RESPONSIBLE PERSON(S):	Valent U.S.A. LLC, Corporate EH&S

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This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200, "Hazcom").

The product label provides information specifically for product use in the ordinary course. All necessary hazard classification and appropriate precautionary use, storage, and disposal information is set forth on that label or labeling accompanying the pesticide or to which reference is made on the label.