Fierce® XLT Soybean Herbicide

Safety Data Sheet - GHS

1. IDENTIFICATION: CHEMICAL PRODUCT AND COMPANY

PRODUCT NAME: Fierce® XLT Soybean Herbicide
EPA REGISTRATION NUMBER: 59639-194
PRODUCT CODE: 88709
VC NUMBER(S): 1922, 1956, 2046
SYNONYM(S): V-10364 Herbicide

Fierce is a Trademark of Valent U.S.A. LLC

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

EMERGENCY TELEPHONE NUMBERS
HEALTH EMERGENCY OR SPILL (24 hr):
(800) 892-0099
TRANSPORTATION (24 hr.): CHEMTREC
(800) 424-9300 or (202) 483-7616

PRODUCT INFORMATION
AGRICULTURAL PRODUCTS: (800) 682-5368

2. HAZARDS IDENTIFICATION

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as the FIFRA-required classifications on the product label. Certain sections of this SDS are superseded by federal law under EPA FIFRA for a registered pesticide. Please see Section 15, REGULATORY INFORMATION for an explanation.

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

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
(nervous system, liver,kidney, heart, urinary bladder, bone marrow)

Precautionary statements

Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required.
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection

Response
IF EXPOSED OR CONCERNED: Get medical advice/attention
Eyes None.
Skin None.
Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Ingestion None.
FIRE None.
Spill None.

Storage
Store locked up

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

Hazards not otherwise classified (HNOC)
Other Information
• Very toxic to aquatic life with long lasting effects.

For information on Transportation requirements, see Section 14.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%	TRADE SECRET
Flumioxazin	103361-09-7	24.6	
Pyroxasulfone	447399-55-5	31.2	
Chlorimuron-ethyl	90982-32-4	6.7	
Ammonium sulfate	7783-20-2	2 - 18	*
Hydrated Amorphous Silica	112926-00-8	<1	
Other ingredients	NO CAS#	18 - 36	

* The chemical name, CAS number and/or exact percentage have been withheld as a trade secret

Other ingredients, which may be maintained as trade secrets, are any substances other than an active ingredient contained in this product. Some of these may be hazardous, but their identities are withheld because they are considered trade secrets. The hazards associated with the other ingredients are addressed in this document. 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 **(800) 892-0099** at any time.

4. FIRST AID MEASURES

EMERGENCY NUMBER (800) 892-0099

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **1-800-892-0099** for emergency medical treatment information.

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:
None

5. FIRE FIGHTING MEASURES

Flash point °C
FLASH POINT: Not applicable
Flash point °F
EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam, or water.

NFPA RATING:

Health:	1
Flammability:	1
Reactivity:	0
Special:	None

(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using professional judgement. Values were not available in the guidelines or published evaluations prepared by the National Fire Protection Association, NFPA.

FIRE FIGHTING INSTRUCTIONS: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear. Avoid inhalation of smoke and fumes. Prevent extinguishing media run off from entering drains, sewers, and bodies of water.

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
OBSERVE PRECAUTIONS IN SECTION 8: PERSONAL PROTECTION
Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of the soil, surface water, or ground water. For additional spill response information refer to the North American Emergency Response Guidebook.

UN/NA NUMBER: Not applicable **EMERGENCY RESPONSE GUIDEBOOK NO.:** Not applicable

FOR SPILLS OR LEAKS:

CONTAINMENT: Reduce airborne dust. Avoid runoff into storm sewers or other bodies of water. Keep well ventilated. Wear proper personal protective equipment.

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. Prevent wash water from entering surface water or drains. Wear proper personal protective equipment.

7. HANDLING AND STORAGE

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

HANDLING:
Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE:
Keep in original container. Store in a cool, dry, secure place. Do not put formulation or dilute spray solution into food or drink containers. Do not contaminate water, food or feed by storage or disposal. Do not store or transport near food or feed. Not for use or storage in or around the home.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

ENGINEERING CONTROLS: Applicators and all other handlers: Refer to the product label for personal protective clothing and equipment.

INFORMATION FOR END USERS

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. For aerial application, mixers and loaders must also wear: PF 5 respirator

SKIN & HAND PROTECTION: Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of waterproof material such as polyethylene or polyvinyl chloride, socks and shoes.

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and was PPE separately from other laundry.

EXPOSURE LIMITS

Chemical name	ACGIH Exposure Limits	OSHA Exposure Limits	Manufacturer's Exposure

			Limits
Flumioxazin	None	None	None
Pyroxasulfone	None	None	None
Chlorimuron-ethyl	None	None	10 mg/m³ 8 and 12 hour TWA (total dust); 5 mg/m³ 8 and 12 hour TWA (respirable dust)
Ammonium sulfate	None	None	None
Hydrated Amorphous Silica	None	TWA: 20 mppcf : (80)/(% SiO2) mg/m³ TWA (vacated) TWA: 6 mg/m³	None
Other ingredients	None	None	None

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state Solid
Appearance Granules
Color Brown and Cream
Odor Musty
Odor threshold No information available

PROPERTIES	Values	Remarks • Method
pH	5.9 - 6.7	
Melting point/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
Upper flammability limits	No information available	
Lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	No information available	
Water solubility	Dispersible in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity	Not Applicable	
Explosive properties	Product contains no explosive ingredients.	
Oxidizing properties	Product ingredients do not include oxidizing or reducing agents	
Liquid Density	No information available	
Bulk density	33.0 lb./ft³	

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
Incompatible with strong acids and bases.

Hazardous Decomposition Products
Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Based on the evaluation of similar products.

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)	> 2.06 mg/L	EPA Tox Category	IV
Eye Irritation (rabbits)	Moderately irritating	EPA Tox Category	III
Skin Irritation (rabbits)	Slightly irritating	EPA Tox Category	IV
Skin Sensitization (guinea pigs)	Not a contact sensitizer.	EPA Tox Category	Not applicable

CARCINOGEN CLASSIFICATION

Chemical name	IARC Group 1 or 2	OSHA - Select Carcinogens	NTP Carcinogen List
Flumioxazin	Not listed	Not listed	Not listed
Pyroxasulfone	Not listed	Not listed	Not listed
Chlorimuron-ethyl	Not listed	Not listed	Not listed
Ammonium sulfate	Not listed	Not listed	Not listed
Hydrated Amorphous Silica	Not Listed	Not listed	Not listed
Other ingredients	Not listed	Not listed	Not listed

TOXICITY OF FLUMIOXAZIN TECHNICAL:

SUBCHRONIC: Compound related effects of Flumioxazin Technical noted in rats following subchronic exposures at high dose levels were hematotoxicity including anemia, and increases in liver, spleen, heart, kidney and thyroid weights. In dogs, the effects produced at high dose levels included a slight prolongation in activated partial thromboplastin time, increased cholesterol and phospholipid, elevated alkaline phosphatase, increased liver weights and histological changes in the liver. The lowest no-observable-effect-level (NOEL) in subchronic studies was 30 ppm in the three-month toxicity study in rats.

CHRONIC/CARCINOGENICITY: In a one year dog feeding study, Flumioxazin Technical produced treatment-related changes in blood chemistry and increased liver weights at 100 and 1000 mg/kg/day. Minimal treatment-related histological changes were noted in the livers of animals in the 1000 mg/kg/day group. Based on these data the NOEL is 10 mg/kg/day. Dietary administration of Flumioxazin Technical for 18 months produced liver changes in mice of the 3000 and 7000 ppm groups. There was no evidence of any treatment-related oncogenic effect. The NOEL for this study is 300 ppm. Dietary administration of Flumioxazin Technical for 24 months produced anemia and chronic nephropathy in rats of the 500 and 1000 ppm groups. The anemia lasted throughout the treatment period, however, it was not progressive nor aplastic in nature. No evidence of an oncogenic effect was observed. The NOEL for this study is 50 ppm.

DEVELOPMENTAL TOXICITY: Flumioxazin Technical produces developmental toxicity in rats in the absence of maternal toxicity at doses of 30 mg/kg/day by the oral route and 300 mg/kg/day by the dermal route. The developmental effects noted consisted primarily of decreased number of live fetuses and fetal weights, cardiovascular abnormalities, wavy ribs and decreased number of ossified sacrococcygeal vertebral bodies. The developmental NOEL in the rat oral and dermal developmental toxicity studies were 10 and 100 mg/kg/day, respectively. The response in rabbits was very different from that in rats. No developmental toxicity was noted in rabbits at doses up to 3000 mg/kg/day, a dose well above the maternal NOEL of 1000 mg/kg/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 Technical was not mutagenic in most *in vitro* assays: gene mutation and a chromosome aberration assay in the absence of metabolic activation. In three *in vivo* assays, chromosome aberration, unscheduled DNA synthesis and micronucleus assay, Flumioxazin Technical was not mutagenic. The only positive response was observed in the *in vitro* chromosome aberration assay in the presence of metabolic activation. Overall, Flumioxazin Technical does not present a genetic hazard.

STOT - repeated exposure Rat 90-day repeated dose toxicity study: Bone marrow.

TOXICITY OF PYROXASULFONE TECHNICAL:

SUBCHRONIC: Pyroxasulfone related effects include increased AST, slight liver and kidney weight increases, increased cardiomyopathy, centrilobular hepatocellular hypertrophy and hyperplastic urinary bladder mucosa. The NOAEL in rats was 50 ppm. No neurotoxicity was observed at acute doses to rats as high as 2000 mg/kg.

CHRONIC/CARCINOGENICITY: Pyroxasulfone was not carcinogenic in lifetime feeding studies in mice. Pyroxasulfone produced an increased incidence of urinary bladder transitional cell papillomas in male rats in a two-year carcinogenicity study. The tumors seen with Pyroxasulfone were caused through a non-genotoxic mechanism, which is not relevant at low doses.

REPRODUCTION: Pyroxasulfone did not produce effects on fertility or the embryo at the dosage of which general toxicity to parental animals was observed.

MUTAGENICITY: Pyroxasulfone is not mutagenic according to results for an *in vitro* reverse mutation test, chromosomal aberration test and *in vivo* mouse bone marrow miconucleus test.

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE: Pyroxasulfone caused specific target organ toxicity in experimental animal studies in the following organs(s): Liver, Kidney, Urinary bladder, Heart.

TOXICITY OF CHLORIMURON-ETHYL TECHNICAL:

CHRONIC/CARCINOGENICITY: Chlorimuron ethyl technical was administered to rats for 2 years at dietary concentrations of 0, 25, 250 and 2500 ppm. This compound was not oncogenic at any dose. The NOEL was 250 ppm based on transient anemia observed during the first year of the study and slight body weight and organ weight changes. Chlorimuron ethyl technical was administered to mice for 18 months at dietary concentrations of 0, 12.5, 125 and 1250 ppm. There were no oncogenic effects or other effects observed at any dose. The NOEL was 1250 ppm, the highest dose tested.Chlorimuron ethyl technical was fed to dogs at dose levels of 0, 25, 250 or 1500 ppm in the diet. The NOEL was 250 ppm based on increased liver weight, clinical chemistry changes and anemia at the high dose.®

DEVELOPMENTAL TOXICITY: Rats were dosed via intubation at 0, 30, 150 or 600 mg/kg/day chlorimuron ethyl technical. The NOEL for maternal and fetotoxicity was 30 mg/kg/day based on reduced food consumption and body weight gain and increased frequency of fetal variations. There was a slight increase in the number of fetal malformations in the presence of overt maternal toxicity at the high dose. Although this was not statistically significant, it was considered to be a weak teratogenic response. In this study chlorimuron ethyl technical was not demonstrated to be a unique hazard to the conceptus. Rabbits were dosed via intubation at 0, 15, 60 or 300 mg/kg/day. There were no teratogenic effects at any dose. The NOELs for maternal and fetotoxicity were 60 and 15 mg/kg/day respectively. These were based on reduced body weight gain and increased frequency of fetal variations due to retarded development.

REPRODUCTION: Chlorimuron ethyl technical was administered in the diet at concentrations of 0, 25, 250 or 2500 ppm in a 2-generation rat reproduction study. Reproduction and lactation performance were not affected at any dose. The NOEL for maternal and fetotoxicity was 250 ppm. This was based on reduced maternal and fetal body weights and a compromised nutritional state among offspring at the high dose.

MUTAGENICITY: Chlorimuron ethyl technical was negative in the following genotoxicity tests: Ames bacterial assay, *in vitro* mutagenicity test in Chinese hamster ovary cells, *in vivo* cytogenetic assay (rat bone marrow cells), and *in vitro* unscheduled DNA synthesis (rat liver cells).

For a summary of the potential for adverse health effects from exposure to this product, refer to Section 2. For information regarding regulations pertaining to this product, refer to Section 15.

12. ECOLOGICAL INFORMATION

AVIAN TOXICITY:

Based upon EPA designation, Flumioxazin Technical is practically non-toxic to avian species. The following results were obtained from studies with 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.

Flumioxazin Technical in the diet. In mallard ducks, a slight, but not statistically significant reduction in hatchlings and 14-day old survivors was observed. Based on a possible, slight effect on egg production at 500 ppm, the NOEL for this study was 250 ppm.

The following results were obtained from studies with Pyroxasulfone Technical:

LD_{50} bobwhite quail: greater than 2250 mg/kg

Chlorimuron ethyl technical is minimally toxic to avian species:

Oral LD_{50} mallard duck: greater than 2510 mg/kg
Dietary LC_{50} bobwhite quail: greater than 5620 ppm

AQUATIC ORGANISM TOXICITY:

Based upon EPA designation, Flumioxazin Technical is slightly to moderately toxic to freshwater fish; moderately toxic to freshwater invertebrates; moderately toxic to estuarine/marine fish and moderately to highly toxic to estuarine/marine invertebrates, based on the following tests:

96-hour LC_{50} rainbow trout: 2.3 mg/L
96-hour LC_{50} bluegill sunfish: greater than 21 mg/L
48-hour LC_{50} Daphnia magna: greater than 5.5 mg/L
96-hour LC_{50} sheepshead minnow: greater than 4.7 mg/L
96-hour (shell deposition) EC_{50} eastern oyster: 2.8 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 >52 µg/L, <99 µg/L.

Pyroxasulfone Technical is very toxic to aquatic organisms; special attention should be given to aquatic plants. Based upon EPA designation, the following test results are based on Pyroxasulfone Technical:

96-hour LC_{50} rainbow trout: greater than 2.2 mg/L
96-hour LC_{50} bluegill: greater than 2.8 mg/L
48-hour LC_{50} Daphnia magna: greater than 4.4 mg/L
96-hour LC_{50} sheepshead minnow: greater than 3.3 mg/L
96-hour EC_{50} algae = 0.00038 mg/L
7-day EC_{50} Spirodela polyrhiza = 0.0055 mg/L
14-day LC_{50} Earthworm = 997 mg/kg

Chlorimuron-ethyl technical is minimally toxic to fish and mysids, but toxic to aquatic plants:

96-hour LC_{50} Rainbow trout: greater than 1000 mg/L
96-hour LC_{50} bluegill sunfish: greater than 100 mg/L
48-hour EC_{50} Daphnia magna: greater than 1000 mg/L
72-hour EC_{50} algae: 0.001 mg/L

OTHER NON-TARGET ORGANISM TOXICITY: Based upon EPA designation, Flumioxazin Technical is practically non-toxic to bees. The acute contact LC_{50} in bees was greater than 105 µg/bee. Pyroxasulfone Technical is practically non-toxic to bees. The acute contact (48-hour) LD_{50} in bees was greater than 100 µg/bee.

OTHER ENVIRONMENTAL INFORMATION:
Do not apply directly to water, to areas where surface water is present, or to intertidal areas below mean high water mark. Do not apply where runoff is likely to occur. Do not apply where weather conditions favor drift from areas treated. Do not contaminate water when cleaning equipment or disposing of equipment washwater or rinsate.

13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

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 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 mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two 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
EMERGENCY RESPONSE GUIDEBOOK NO.: Not applicable

ICAO/IATA SHIPPING NAME: UN3077 Environmentally Hazardous Substance, Solid, N.O.S. (Flumioxazin, Pyroxasulfone, Chlorimuron-ethyl), 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
•For US shipping, Emergency Response Guidebook No. 171

IMDG SHIPPING NAME:	UN3077 Environmentally Hazardous Substance, Solid, N.O.S. (Flumioxazin, Pyroxasulfone, Chlorimuron-ethyl), 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
EMS NO.:	F-A, S-F

15. REGULATORY INFORMATION

EPA-FIFRA LABEL INFORMATION THAT DIFFERS FROM OSHA-GHS REQUIREMENTS:

Pesticide products in the U.S. are registered by the EPA under FIFRA and are subject to certain labeling requirements under federal pesticide law. These requirements may differ from the classification criteria and hazard information required by OSHA GHS for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the FIFRA pesticide label:

EPA FIFRA SIGNAL WORD: CAUTION

- ***Causes moderate eye irritation***
- ***Avoid contact with eyes.***
- ***Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using*** *tobacco or using the toilet.*
- ***Keep out of reach of children.***

PESTICIDE REGULATIONS: All pesticides are governed under FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

U.S. FEDERAL REGULATIONS: Ingredients in this product are reviewed against an inclusive list of federal regulations. Therefore, the user should consult appropriate authorities. The federal regulations reviewed include: Clean Water Act, SARA, CERCLA, RCRA, DOT, TSCA and OSHA. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

Chlorimuron-ethyl

SARA 313 Chemicals	1.0% de minimis concentration

SARA (311, 312):

Immediate Health:	Yes
Chronic Health:	Yes
Fire:	No
Sudden Pressure:	No
Reactivity:	No

STATE REGULATIONS: Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities. The state regulations reviewed include: California Proposition 65, California Directors List of Hazardous Substances, Massachusetts Right to Know, Michigan Critical Materials List, New Jersey Right to Know, Pennsylvania Right to Know, Rhode Island Right to Know and the Minnesota Hazardous Substance list. For Washington State Right to Know, see Section 8 for Exposure Limit information. For Louisiana Right to Know refer to SARA information listed under U.S. Regulations above. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

Chlorimuron-ethyl

NJ Right To Know	3229
Ammonium sulfate	
MA Right To Know	Present
PA Right To Know	Environmental hazard
RI Right To Know	Listed
Hydrated Amorphous Silica	
MA Right To Know	Present
NJ Right To Know	3510
PA Right To Know	Present
RI Right To Know	Listed
MN Hazardous Substance	Present

For information regarding potential adverse health effects from exposure to this product, refer to Sections 2 and 11.

16. OTHER INFORMATION

REASON FOR ISSUE:	Updated Manufacturer/Distributor Address and General Review.
SDS NO.:	0442
EPA REGISTRATION NUMBER:	59639-194
REVISION NUMBER:	5
REVISION DATE:	08/26/2020
SUPERCEDES DATE:	05/20/2020
RESPONSIBLE PERSON(S):	Valent U.S.A. LLC, Corporate EH&S, (925) 256-2803

The information provided in this Safety Data Sheet (SDS) is provided in good faith and believed to be accurate at the time of preparation of the SDS. However, to the extent consistent with applicable law, Valent U.S.A. LLC and its subsidiaries or affiliates extend no warranties, make no representations, and assume no responsibility as to the accuracy, suitability, or completeness of such information. Additionally, to the extent consistent with applicable law, neither Valent U.S.A. LLC nor any of its subsidiaries or affiliates represents or guarantees that this information or product may be used without infringing the intellectual property rights of others. Except to the extent a particular use and particular information are expressly stated on the product label, it is the users' own responsibility to determine the suitability of this information for their own particular use of this product. If necessary, contact Valent U.S.A. LLC to confirm that you have the most current product label and SDS.

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.