



Material Safety Data Sheet

Celero™ Herbicide

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Celero™ Herbicide
VC NUMBER(S): 1738
SYNONYM(S): V-10142 Herbicide
EPA REGISTRATION NUMBER: 59639-155

PRODUCT DESCRIPTION: Selective Herbicide

MANUFACTURER/DISTRIBUTOR

VALENT U.S.A. CORPORATION
P.O. Box 8025
1600 Riviera Avenue, Suite 200
Walnut Creek, CA 94596-8025

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

PROFESSIONAL PRODUCTS: (800) 898-2536

The current MSDS is available through our website (www.valent.com), or by calling the product information numbers listed above.

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION

- Harmful if swallowed, inhaled or absorbed through skin.
- Avoid contact with eyes, skin and clothing.
- Causes moderate eye irritation.
- Avoid breathing dust.
- Keep out of reach of children.

POTENTIAL HEALTH EFFECTS

Acute Toxicity (Primary Routes of Exposure): Skin, Eyes, Inhalation

Acute Eye Contact: This product may be a moderate eye irritant. Adverse health effects resulting from an exposure may include redness, swelling and pain which could last for an extended period of time.

Acute Skin Contact: This product may cause moderate skin irritation. The expected adverse health effects resulting from an exposure may include redness and possibly some minor swelling. This product may be minimally toxic when absorbed through the skin. This product is not expected to cause allergic skin reactions.

Acute Ingestion: This product may be slightly toxic when ingested.

Acute Inhalation: This product may be minimally toxic when inhaled.

Chronic Toxicity (including cancer): Imazosulfuron Technical was not carcinogenic in tests with laboratory animals.

Developmental Toxicity (birth defects): Imazosulfuron Technical did not produce birth defects in tests with laboratory animals.

Reproductive Toxicity: Imazosulfuron Technical did not produce adverse effects in a reproduction study with rats.

Emergency Telephone: (800) 892-0099
REVISION NUMBER: 5

MSDS NO.: 0270
REVISION DATE: 01/25/2011

Signs and Symptoms of Systemic Effects: None

Potentially Aggravated Medical Conditions: None known

For complete discussion of the toxicology data from which this evaluation was made, refer to Section 11. For Ecotox/Environmental Information, refer to Section 12. For Regulatory Information, refer to Section 15.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight/ Percent	Purpose
Imazosulfuron Technical (2-chloro-N-[[[4,6-dimethoxy-2-pyrimidinyl]amino]carbonyl] imidazo-[1,2-a]pyridine-3-sulfonamide)	122548-33-8	73-77	Active Ingredient
Hydrated Amorphous Silica	112926-00-8	1.8-2.0	Flow aid
Kaolin clay	1332-58-7	1.3-1.5	Carrier
Polyvinylpyrrolidone	9003-39-8	0.09-0.11	Ingredient
Others	(Various CAS#s)	20.18-22.44	Other Ingredients

Other ingredients, which are 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 by mouth 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:

Not applicable

AUTOIGNITION:

No data available

5. FIRE FIGHTING MEASURES**EXTINGUISHING MEDIA:** Water fog, carbon dioxide, foam, dry chemical**FLAMMABLE LIMITS IN AIR - LOWER (%):**

Not applicable

FLAMMABLE LIMITS IN AIR - UPPER (%):

Not applicable

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: Products of combustion from fires involving this material may be toxic. 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.

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 ON LAND:**

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.

FOR SPILLS IN WATER:

CONTAINMENT: This material will disperse or dissolve in water. Stop the source of the release. Contain and isolate to prevent further release into soil, surface water and ground water.

CLEANUP: Clean up spill immediately. Absorb spill with inert material. Remove contaminated water for treatment or disposal.

7. HANDLING AND STORAGE**END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.****HANDLING:**

Keep pesticide in original container. Users should wash hands thoroughly with soap and water 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.

STORAGE:

Keep pesticide in original container only. Do not store or transport near food or feed. Do not contaminate food or foodstuffs. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers. Store in a cool, dry place. Product should be stored in a locked storage area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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 operating conditions result in airborne concentrations of this material, the use of an approved respirator is recommended.

SKIN & HAND PROTECTION: Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing including gloves.

EXPOSURE LIMITS

Chemical Name	ACGIH Exposure Limits	OSHA Exposure Limits	Manufacturer's Exposure Limits
Imazosulfuron Technical (2-chloro-N-[[[4,6-dimethoxy-2-pyrimidinyl]amino]carbonyl] imidazo-[1,2-a]pyridine-3-sulfonamide)	None	None	None
Hydrated Amorphous Silica	10 mg/m ³ (total amorphous dust); 3 mg/m ³ (respirable nuisance particulate)	6 mg/m ³ (total dust)	None
Kaolin clay	2 mg/m ³ TWA (respirable fraction)	15 mg/m ³ TWA 5 mg/m ³ TWA	None
Polyvinylpyrrolidone	None	None	None
Others	None	None	None

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM:	Granule
COLOR:	Tan
ODOR:	Odorless
FLASH POINT:	Not applicable
BULK DENSITY:	30.6 lb/ft ³
SPECIFIC GRAVITY:	No data available
pH:	6.7 (1% suspension)
CORROSION CHARACTERISTICS:	Not corrosive
OCTANOL/WATER PARTITION COEFFICIENT:	No data available
SOLUBILITY:	Dispersible in water

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable for 1 year at ambient temperature
THERMAL STABILITY:	Decomposes at 201°C (394°F) (technical material)
INCOMPATIBILITY:	None known
OXIDATION/REDUCTION PROPERTIES:	Not reactive with water, monoammonium phosphate, zinc, and potassium permanganate.
EXPLODABILITY:	Not expected to be explosive

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral Toxicity LD ₅₀ (rats)	3,129 mg/kg	EPA Tox Category	III
Dermal Toxicity LD ₅₀ (rabbits)	> 5,000 mg/kg	EPA Tox Category	IV
Inhalation Toxicity LC ₅₀ (rats)	> 2.11 mg/L	EPA Tox Category	IV
Eye Irritation (rabbits)	Moderately irritating	EPA Tox Category	III
Skin Irritation (rabbits)	Moderately irritating	EPA Tox Category	III
Skin Sensitization (guinea pigs)	Non-sensitizer	EPA Tox Category	Not applicable

CARCINOGEN CLASSIFICATION

Chemical Name	IARC - Group 1 (carcinogenic to humans)	IARC - Group 2A (Probably carcinogenic)	IARC - Group 2B (Possibly carcinogenic)	NTP Carcinogen List
Imazosulfuron Technical (2-chloro-N-[[[4,6-dimethoxy-2-pyrimidinyl]amino]carbonyl] imidazo-[1,2-a]pyridine-3-sulfonamide)	No	No	No	Not listed
Kaolin clay	No	No	No	Not listed
Hydrated Amorphous Silica	No	No	No	Not listed
Polyvinylpyrrolidone	No	No	No	Not listed
Others	No	No	No	Not listed

TOXICITY OF IMAZOSULFURON TECHNICAL

CHRONIC/CARCINOGENICITY: No oncogenic effects were observed with Imazosulfuron Technical in a 2-year rat or 18-month mouse study. The liver was the primary target organ in long term, high dose studies.

DEVELOPMENTAL TOXICITY: Imazosulfuron Technical did not produce birth defects in tests with laboratory animals.

REPRODUCTION: Imazosulfuron Technical did not produce adverse effects in a reproduction study with rats.

MUTAGENICITY: Imazosulfuron Technical was negative in the following tests for mutagenicity: Ames Assay, DNA repair assay, in vitro chromosomal aberration test and micronucleus test in mice.

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, Imazosulfuron Technical is practically non-toxic to avian species. The following results were obtained from studies with Imazosulfuron Technical:

Oral LD₅₀ bobwhite quail: greater than 2250 mg/kg
 Oral LD₅₀ mallard duck: greater than 2250 mg/kg
 Dietary LC₅₀ bobwhite quail: greater than 5620 ppm
 Dietary LC₅₀ mallard duck: greater than 5620 ppm

AQUATIC ORGANISM TOXICITY: Based upon EPA designation, Imazosulfuron Technical is slightly toxic to fish and aquatic invertebrate species. Test results include:

LC₅₀ (96 hr) Bluegill Sunfish: greater than 74 mg/L
LC₅₀ (96 hr) Rainbow Trout: greater than 69 mg/L
LC₅₀ (96 hr) Common Carp: greater than 100 mg/L
LC₅₀ (96 hr) Sheepshead Minnow: greater than 94 mg/L
EC₅₀ (48 hr) Daphnia magna: greater than 91 mg/L
LC₅₀ (96 hr) Mysid Shrimp: greater than 79 mg/L
EC₅₀ (96 hr) Oyster Shell Deposition: = 62 mg/L
EC₅₀ (96 hr) Blue-green algae: = 13 mg/L
EC₅₀ (96 hr) Green algae: greater than 6 mg/L
EC₅₀ (96 hr) Freshwater diatom: greater than 100 mg/L
EC₅₀ (96 hr) Duckweed: 0.5 µg/L

OTHER NON-TARGET ORGANISM TOXICITY:

The acute contact toxicity for Imazosulfuron Technical in honeybees was an LD₅₀ greater than 20 µg/bee.

13. DISPOSAL CONSIDERATIONS

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

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. 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 in accordance with applicable laws and regulations.

14. TRANSPORT INFORMATION

UN/NA NUMBER:	Not applicable
DOT (ground) SHIPPING NAME:	Pesticide, Solid, Non-regulated
TECHNICAL NAME (hazardous material):	Not applicable
HAZARD CLASS:	Not applicable
PACKING GROUP:	Not applicable
DOT REPORTABLE QUANTITY (RQ):	None
REMARKS:	None
EXEMPTION REQUIREMENT:	None
EMERGENCY RESPONSE GUIDEBOOK NO.:	Not applicable
MARINE POLLUTANT:	Not applicable

15. REGULATORY INFORMATION

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.

Polyvinylpyrrolidone

TSCA Inventory List -

Listed

SARA (311, 312):

Immediate Health:	Yes
Chronic Health:	Yes
Fire:	Yes
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.

Kaolin clay

MA Right To Know	Listed
PA Right To Know	Listed
RI Right To Know	Listed
MN Hazardous Substance	Listed

Hydrated Amorphous Silica

MA Right To Know	Listed
PA Right To Know	Listed
MN Hazardous Substance	Listed

Polyvinylpyrrolidone

California - Directors List of Hazardous Substances	Present
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For information regarding potential adverse health effects from exposure to this product, refer to Sections 2 and 11.

16. OTHER INFORMATION

REASON FOR ISSUE:	Corrected the product name. EPA approved label edits throughout.
MSDS NO.:	0270
EPA REGISTRATION NUMBER:	59639-155
REVISION NUMBER:	5
REVISION DATE:	01/25/2011
SUPERCEDES DATE:	June 29, 2009
RESPONSIBLE PERSON(S):	Valent U.S.A. Corporation, Corporate EH&S, (925) 256-2803

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS 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, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products is regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling. All necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

The information in this MSDS is based on data available to us as of the revision date given herein, and believed to be correct. Contact Valent U.S.A. Corporation to confirm if you have the most current MSDS.

Judgements as to the suitability of information herein for the individual's own use or purposes are necessarily the individual's own responsibility. Although reasonable care has been taken in the preparation of such information, Valent extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to the individual's purposes or the consequences of its use.

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