

VELOCITY™ HERBICIDE

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.

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Velocity™ Herbicide
VC NUMBER(S): VC-1177
EPA REGISTRATION NUMBER: 59639-105
SYNONYM(S):
V-10029 80 S Herbicide
NOMINEE®

MANUFACTURER
VALENT USA CORPORATION
P.O. Box 8025

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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
AGRICULTURAL PRODUCTS: (800) 6VALENT
PROFESSIONAL PRODUCTS: (800) 89VALENT

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name (CAS #) [Chemical Name]	Weight Percent	Exposure Limit	Ref.
Bispyribac-sodium* (125401-92-5) [sodium 2,6-bis[(4,6-dimethoxy)pyrimidin-2-yl]oxy]benzoate]	77-83	None	—
Amorphous Polymer	15-20	15 mg/m ³ (dust)	OSHA, ACGIH
Other**	1-2	None	—

* Active Ingredient

** 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 identity is 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 1-800-892-0099 at any time.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION:

- CAUSES MODERATE EYE IRRITATION
- HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN
- AVOID BREATHING DUST OR SPRAY MIST
- AVOID CONTACT WITH EYES, SKIN OR CLOTHING
- KEEP OUT OF REACH OF CHILDREN

POTENTIAL HEALTH EFFECTS

Acute Toxicity (Primary Routes of Exposure)

Signs and Symptoms of Systemic Effects: Signs of toxicity observed in test animals exposed to repeated high doses of a similar product, bispyribac-sodium technical, include vomiting, salivation, loose stools and decreased body weight gain.

Eye: Based on an evaluation of the ingredients and/or similar products, this product is expected to cause brief and/or minor eye irritation. The expected adverse health effects resulting from an exposure may include redness and possible swelling.

Skin: Based on an evaluation of the ingredients and/or similar products, this product is expected to cause brief and/or minor skin irritation. The expected adverse health effects may include redness and possibly some minor swelling.

Based on an evaluation of the ingredients and/or similar products, this product is not expected to cause allergic skin reactions.

Based on an evaluation of the ingredients and/or similar products, this product is expected to be slightly toxic when absorbed through the skin.

Ingestion: Based on an evaluation of the ingredients and/or similar products, this product is expected to be slightly toxic when ingested.

Inhalation: Based on an evaluation of the ingredients and/or similar products, this product is expected to be slightly toxic when inhaled.

Exposure to high airborne concentrations may result in respiratory irritation. Signs and symptoms may include but not be limited to nasal discharge, sore throat, coughing and difficulty in breathing.

Chronic Toxicity (Including Cancer): Studies with bispyribac-sodium technical in laboratory animals indicate that repeated high exposures can produce changes in the liver, urinary bladder, bile duct and kidney but do not produce cancer.

Teratology (Birth Defects) Information: No developmental toxicity was produced in laboratory animals exposed to bispyribac-sodium technical, even at doses that were toxic to the pregnant animal.

Reproduction Information: Bispyribac-sodium technical did not produce reproductive toxicity in animal studies.

Potentially Aggravated Condition: Individuals with preexisting conditions of the liver, kidney, bile duct or urinary bladder may have increased susceptibility to the toxicity of excessive exposures.

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

SECTION 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.

EYES: 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: 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 a 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.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: NA

METHOD: NA

AUTOIGNITION: NA

EXTINGUISHING MEDIA: CO₂, dry chemical, foam, water spray.

FLAMMABLE LIMITS (% by volume in air):

Lower: NA

Upper: NA

NFPA RATINGS: 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: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment. This may include self-contained breathing apparatus to protect against the hazardous effects of normal products of combustion or oxygen deficiency. Read the entire MSDS document.

HAZARDOUS COMBUSTION PRODUCTS: Normal combustion forms carbon dioxide, water vapor and may produce oxides of nitrogen. Incomplete combustion can produce carbon monoxide.

SECTION 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 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.

SECTION 7: HANDLING AND STORAGE

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

Keep pesticide in original container. Do not store or transport near food or feed. Do not contaminate food or feed. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers. Store in a cool, dry place, out of direct sunlight.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

EYE PROTECTION: Do not get this material in your eyes. Eye contact can be avoided by wearing protective eyewear.

RESPIRATION/VENTILATION: If operating conditions result in airborne concentrations of this material, the use of an approved respirator is recommended.

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Powder at ambient temperature

ODOR: No odor.

MELTING POINT: 219.5°C (Technical decomposes)

BULK DENSITY: 0.25 g/ml or 15.6 lb./cu. ft.

SOLUBILITY: 6.75 g/100 ml water (Technical)

pH: 8.84 (1% w/v in water, 20°C)

CORROSION CHARACTERISTICS: NDA

SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable.

INCOMPATIBILITY: Non-reactive with oxidizing and reducing agents and fire suppressants.

HAZARDOUS DECOMPOSITION PRODUCTS: None expected

IMPACT EXPLODABILITY: NDA

OXIDATION/REDUCTION PROPERTIES: NDA

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE (Product Specific Information):

Eye Irritation: No product toxicology data available. Based on information on the ingredients this product is expected to be a slight eye irritant. (Toxicity Category III)

Skin Irritation: No product toxicology data available. Based on information on the ingredients it is not expected to be a skin irritant. (Toxicity Category IV)

Dermal Toxicity: No product toxicology data available. Based on information on the ingredients this product is expected to produce minimal toxicity by the dermal route. (Toxicity Category III)

Oral Toxicity: No product toxicology data available. Based on information for the ingredients this product is expected to produce minimal to slight toxicity by the oral route. (Toxicity Category III)

Inhalation Toxicity: No product toxicology data available. Based on information for the ingredients this product is expected to be minimally toxic by the inhalation route. (Toxicity Category IV)

Skin Sensitization: No product toxicology data available. Based on information for the ingredients it is not expected to be a skin sensitizer.

SUBCHRONIC: Bispyribac-sodium technical was tested in rats at dose levels of 0, 100, 1000, 10000, and 20000 ppm for 13 weeks. The NOEL was 100 ppm (7.2 mg/kg/day) in males and 1000 ppm (79.9 mg/kg/day) in female rats. Effects observed at higher doses included histopathological changes in the liver, urinary bladder and the bile duct; increased serum GOT, GPT and ALP; and reduced body weight gain. Bispyribac-sodium technical was also tested in dogs for 13 weeks at doses of 0, 30, 100 and 600 mg/kg/day. The NOEL was 100 mg/kg/day. Vomiting, salivation and loose stools were observed in animals exposed to 600 mg/kg/day. Histopathological changes in the liver were also noted in males at 600 mg/kg/day.

CHRONIC/CARCINOGENICITY: Bispyribac-sodium technical was tested in rats for 2 years at doses of 0, 20, 200, 3500 and 7000 ppm in males and 0, 20, 200, 5000 and 10000 ppm in females. The NOEL was 20 ppm (male 1.1 mg/kg/day, female 1.4 mg/kg/day). Effects observed at higher doses included decreased body weight gain; changes in hematological and blood biochemistry values; and histopathological lesions of the liver and bile duct. No neoplastic lesions were observed.

Bispyribac-sodium technical was tested in mice for 18 months at doses of 0, 10, 100, 2500 and 5000 ppm. The NOEL was 100 ppm (14.1 mg/kg/day) in males and 10 ppm (1.7 mg/kg/day) in females. Effects observed at higher doses included reduced body weight gain; decreased liver weight; increased kidney weight; and histopathological changes in the liver. No neoplastic lesions were observed.

A 52-week chronic toxicity study of bispyribac-sodium technical was conducted in dogs at doses of 0, 10, 100 and 750 mg/kg/day. The NOEL was 10 mg/kg/day. Effects observed at higher doses included salivation, vomiting and loose stools; increased liver weight; and histopathological changes in the bile duct.

TERATOLOGY/DEVELOPMENTAL TOXICITY: Bispyribac-sodium technical was tested in a developmental toxicity study with rabbits at doses of 0, 30, 100 and 300 mg/kg/day. The NOEL for maternal toxicity was 100 mg/kg/day; and for developmental toxicity the NOEL was 300 mg/kg/day. Maternal toxicity included one death and premature delivery and slight depression of body weight gain.

Bispyribac-sodium technical was tested in a developmental toxicity study in rats at dose levels of 0, 100, 300 and 1000 mg/kg/day. The maternal NOEL was 300 mg/kg/day and the developmental NOEL was 1000 mg/kg/day. The maternal toxicity observed at 1000 mg/kg/day consisted of anogenital staining.

REPRODUCTION: A two-generation rat reproduction study was conducted with bispyribac-sodium technical at doses of 0, 20, 1000 and 10000 ppm. The NOELs for systemic adult toxicity, offspring developmental parameters and reproductive toxicity were 20, 1000, and 10000 ppm, respectively. Systemic adult toxicity included decreased body weight gain and food consumption; increased liver weight; and histopathological changes in the liver and bile duct. The growth of the F1 and F2 offspring was inhibited at 10000 ppm.

MUTAGENICITY: Bispyribac-sodium technical was negative in the following assays: reverse mutation (Ames); CHO, chromosomal aberration (in vitro); unscheduled DNA synthesis; and micronucleus in mice (in vivo).

For a summary of the potential for adverse health effects from exposure to this product, refer to Section 3. For information regarding regulations pertaining to this product, refer to Section 15.

SECTION 12: ECOLOGICAL INFORMATION

AVIAN TOXICITY: Bispyribac-sodium technical is considered to be practically non-toxic to birds based on tests in the following avian species:

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

Dietary LC₅₀, mallard duck: greater than 5620 ppm

AQUATIC ORGANISM TOXICITY: Bispyribac-sodium technical is considered practically non-toxic to fish and aquatic invertebrates based on results in the following tests:

Bluegill sunfish LC₅₀: greater than 100 ppm (48, 96 hour)

Rainbow trout LC₅₀: greater than 100 ppm (48, 96 hour)

Daphnia magna LC₅₀: greater than 100 ppm (24, 48 hour)

OTHER NON-TARGET ORGANISM TOXICITY: The LC₅₀ of bispyribac-sodium technical in earthworms is greater than 1000 ppm.

SECTION 13: DISPOSAL CONSIDERATIONS

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

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

SECTION 14: TRANSPORT INFORMATION

D.O.T. SHIPPING NAME: Compound, weed killing, dry, non-regulated

TECHNICAL SHIPPING NAME: Bispyribac-sodium 82.4% Powder

D.O.T. HAZARD CLASS: NA

U.N./N.A. NUMBER: NA

EXCEPTIONS: NA

SECTION 15: REGULATORY INFORMATION

REGULATIONS UNDER FIFRA: 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.

OTHER U.S. FEDERAL REGULATIONS:

CERCLA RQ*: None

RCRA:** None

SARA Title III: None

Neither this product nor any of its components have been listed as a carcinogen by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), or the Occupational Safety and Health Administration (OSHA).

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.

PROPOSITION 65: Not Listed

NEW JERSEY HAZARDOUS SUBSTANCE LIST: Not Listed

* RQ: Reportable Quantity

** RCRA waste codes must be determined on a case by case basis (i.e., spill, processing waste, etc.). The waste code presented is based on available product characteristics only.

For information regarding potential adverse health effects from exposure to this product, refer to Sections 3 and 11.

SECTION 16: OTHER INFORMATION

REASON FOR ISSUE: New Product

REVISION NUMBER: 0

REVISION DATE: 01/16/2003

SUPERSEDES DATE: none

MSDS NUMBER: 0216

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 USA CORPORATION TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS.

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EMERGENCY TELEPHONE #: (800) 892-0099

NDA - No Data Available

NA - Not Applicable

MSDS Number: 0216

Revision Number: 0

Revision Date: 01/16/2003

VID 10.4.04