League® MVP Herbicide

Safety Data Sheet - GHS

1. IDENTIFICATION: CHEMICAL PRODUCT AND COMPANY

PRODUCT NAME: League® MVP Herbicide
EPA REGISTRATION NUMBER: 59639-189
VC NUMBER(S): 1739, 1894, 1913, 1914 & other numbers for similar formulations
SYNONYM(S): V-10219 10.43 G Herbicide
PRODUCT DESCRIPTION: Herbicide.

League is a registered 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

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

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 Certain sections of this SDS are superseded by federal law under EPA FIFRA for a registered pesticide.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))

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS).

Label elements

EMERGENCY OVERVIEW

Precautionary statements

Prevention
None

Response

Eyes None.
Skin None.
Inhalation None.
Ingestion None.
FIRE None.
Spill None.

Storage
None

Disposal
None

Hazards not otherwise classified (HNOC)
Other Information
• Harmful to aquatic life
• Harmful to aquatic life with long lasting effects
99.57 % of the mixture consists of ingredient(s) of unknown toxicity

For information on Transportation requirements, see Section 14.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%	TRADE SECRET
Thiobencarb	28249-77-6	10	
Imazosulfuron	122548-33-8	0.43	
Hydrated Amorphous Silica	112926-00-8	1 - 2	
Others	VARIOUS CAS NO.	87.5 - 88.5	*

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 °F Not applicable
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:	0
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.

HAZARDOUS DECOMPOSITION PRODUCTS: Fumes from combustion may contain toxic 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 AND LEAKS

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

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

HANDLING:

Do not put into food or drink containers. Do not dilute in food or drink containers. Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited.

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 pesticide in original container only. Store in cool, dry, secure place. Protect from excessive heat. 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.

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: Not required with normal use. Use in a well ventilated area.

SKIN & HAND PROTECTION: Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves, such as Barrier Laminate, Butyl Rubber, Nitrile Rubber or Viton >= to 14 mils; a chemical resistant apron when loading formulation into equipment or cleaning equipment, and socks plus shoes.

Discard clothing or other absorbent material that have been heavily contaminated with this product. Do not reuse them.

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.

All workers must wear: waterproof boots plus socks when entering flooded fields following treatment.

EXPOSURE LIMITS

Chemical name	ACGIH Exposure Limits	OSHA Exposure Limits	Manufacturer's Exposure Limits
Thiobencarb	None	None	None
Imazosulfuron	None	None	None
Hydrated Amorphous Silica	None	TWA: 20 mppcf : (80)/(% SiO2) mg/m³ TWA (vacated) TWA: 6 mg/m³	None
Others	None	None	None

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid		
Appearance	Granules	**Odor**	Sweet Burnt
Color	Brown	**Odor threshold**	No information available

PROPERTIES	Values	Remarks • Method
pH	6.0 - 7.6 @ 25° C	1% (w/v) suspension in water
Melting point/freezing point	No information available	

Boiling point/boiling range	No information available
Flash point	No information available Not applicable
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limits in Air	
Upper flammability limits	Not applicable
Lower flammability limit	Not applicable
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	No information available
Water solubility	No information available
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Liquid Density	No information available
Bulk density	0.785 - 0.888 g/mL, (49.0 - 55.4 lb/ft^3)

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
None known based on information supplied.

Hazardous Decomposition Products
May emit toxic fumes under fire conditions.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

The acute toxicity information is for this product formulation.

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)	> 2.12 mg/L	EPA Tox Category	IV
Eye Irritation (rabbits)	Minimally irritating	EPA Tox Category	IV
Skin Irritation (rabbits)	Slightly irritating	EPA Tox Category	IV
Skin Sensitization Mouse (LLNA method)	Not a sensitizer	EPA Tox Category	Not applicable

CARCINOGEN CLASSIFICATION

Chemical name	IARC Group 1 or 2	OSHA - Select Carcinogens	NTP Carcinogen List
Thiobencarb	Not listed	Not listed	Not listed
Imazosulfuron	Not listed	Not listed	Not listed
Hydrated Amorphous Silica	Not Listed	Not listed	Not listed
Others	Not listed	Not listed	Not listed

TOXICITY OF THIOBENCARB TECHNICAL

CHRONIC/CARCINOGENICITY: Prolonged administration of the active ingredient thiobencarb technical to rats, mice and dogs did not increase their incidence of cancer over that of untreated animals. The primary significant findings were generally attributable to the poor palatability of the diet (e.g. weight loss). The 2 year mouse oncogenicity study demonstrated no oncogenic potential. The systemic NOEL was 3 mg/kg/day for males and 5 mg/kg/day for females based on histopathological changes in the liver. The 2-year rat oncogenicity study showed no carcinogenicity at 25 mg/kg/day and a systemic NOEL of 1 mg/kg/day based on decreased body weight gain, food consumption and efficiency and increased blood urea nitrogen. A 1-year dog study showed a systemic NOEL of 8 mg/kg/day based on decreased body weight gain, increased liver and kidney weights, and hematological and clinical chemistry changes, and a plasma cholinesterase NOEL of 1 mg/kg/day.

NEUROTOXICITY: Based on acute and subchronic (13-week) studies in rats, thiobencarb technical is not expected to be neurotoxic. The systemic and neurobehavioral NOEL in the rat acute study was 100 mg/kg based on increased clinical signs and gait abnormalities, decreased sensory responses, decreased body temperature and decreased motor activity. In the subchronic study, the systemic NOEL was 2 mg/kg/day based on increased clinical signs, decreased body weights, and increased liver and kidney weights. The neurotoxicity NOEL was > 100 mg/kg/day, the highest dose tested.

DEVELOPMENTAL TOXICITY: Thiobencarb technical did not cause birth defects when tested in experimental animals. Teratology studies conducted in rats with 5, 25 and 150 mg/kg for gestation days 6 to 19 show no teratogenic effects at any dose level. Treatment with 150 mg/kg did, however, result in reduced maternal body weight gain and in reduced fetal weights. The maternal and developmental NOELs are 25 mg/kg/day. A teratology study was also conducted in rabbits at dose levels of 2, 20 and 100 mg/kg/day for the day 7-29 gestation period. Maternal body weight gain and mean fetal weights were reduced at 20 and 100 mg/kg/day dose levels, but there were no teratogenic effects. Shortening the treatment period in rabbits to gestation day 6 - 18 reduced maternal and fetal toxicity. Treatment with 20, 100 and 200 mg/kg/day produced no fetal toxicity, teratogenicity or significant maternal effects. Therefore, the maternal NOEL is 100 mg/kg/day and the developmental NOEL is 200 mg/kg/day (the highest dose tested).

REPRODUCTION: Two generation reproduction studies conducted with thiobencarb technical in rats at dose levels ranging from 2 to 100 mg/kg/day did not impair reproductive performance. Relative and absolute liver and kidney weights were increased in both F0 and F1 generations at 20 and 100 mg/kg/day. Decreased body weight gain was observed at 100 mg/kg/day in both generations of the male and in the F1 female generation. The reproductive toxicity NOEL was 100 mg/kg/day.

MUTAGENICITY: Thiobencarb technical is not expected to pose a genetic hazard. It has been studied in in vitro assays for gene mutation, structural chromosome aberrations and DNA damage/repair as well as in vivo assays measuring micronucleus formation and in the dominant lethal assay. The results for all tests except the in vivo micronucleus test were negative. This single report of a positive response is not cause for concern when evaluated in the context of the oncogenicity, teratogenicity and reproductive toxicity studies.

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: This product is expected to be practically non-toxic to birds based on testing of the active ingredients as technical materials.

AQUATIC ORGANISM TOXICITY: Thiobencarb technical is moderately to highly toxic to freshwater fish and invertebrates. Studies with the technical material and formulated product show that the LC50's were generally greater than 1 ppm. The following LC50 values summarize the acute toxicity findings for Bolero 8 EC:

Bluegill sunfish: 1.7 ppm;
Rainbow trout:: 1.1 ppm;
Daphnid: 0.17 ppm;

Thiobencarb technical can inhibit the reproduction in freshwater invertebrates (Daphnid) at concentrations as low as 3.0 µg/L. Marine/estuarine species: Thiobencarb technical and Bolero 8 EC are moderately to highly acutely toxic to marine/estuarine fish and invertebrates.

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

LC_{50} (96 hr) Bluegill Sunfish: greater than 74 mg/L
LC_{50} (96 hr) Rainbow Trout: greater than 69 mg/L
EC_{50} (48 hr) Daphnia magna: greater than 91 mg/L
LC_{50} (96 hr) Mysid Shrimp: greater than 79 mg/L
EC_{50} (96 hr) Oyster Shell Deposition: = 62 mg/L

OTHER NON-TARGET ORGANISM TOXICITY: Exposure of non-target organisms such as honey bees is not expected under normal use conditions of products containing Thiobencarb Technical.
The acute contact toxicity for Imazosulfuron Technical in honeybees was an LD_{50} greater than 20 µg/bee.

OTHER ENVIRONMENTAL INFORMATION:
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 Pollution Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Do not contaminate water when disposing of equipment wash

waters.

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 outer bag. Do not reuse or refill the outer bag. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Loosen clinging particles by shaking and tapping sides and bottom of the bag.

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 U.S. DOT
EMERGENCY RESPONSE GUIDEBOOK NO.:	Not applicable
ICAO/IATA SHIPPING NAME:	UN 3077, Environmentally Hazardous Substance, Solid, N.O.S. (Imazosulfuron), 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 UN Special Provision 375. •For U.S. shipping, Emergency Response Guidebook No. 171.
IMDG SHIPPING NAME:	UN 3077, Environmentally Hazardous Substance, Solid, N.O.S. (Imazosulfuron), 9, III, Marine Pollutant
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

- ***Harmful if swallowed, inhaled or absorbed through skin.***
- ***Causes moderate eye irritation***
- ***Avoid contact with eyes or clothing***
- ***Avoid breathing dust or spray mist.***
- ***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.

Thiobencarb

SARA 313 Chemicals	1.0% de minimis concentration

SARA (311, 312):

Immediate Health:	Yes
Chronic Health:	No
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.

Thiobencarb

California - Directors List of Hazardous Substances	Present
NJ Right To Know	3472

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:	Update the Manufacturer's address.
SDS NO.:	0427
EPA REGISTRATION NUMBER:	59639-189
REVISION NUMBER:	2
REVISION DATE:	09/03/2020
SUPERCEDES DATE:	03/04/2015
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

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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.