


SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

MATERIAL NAME ▪ **BESTOW HERBICIDE**
EPA Reg. No. ▪ 67760-105
CAS Number ▪ 122931-48-0
Molecular Formula ▪ :C 14:H 17:N 5:O 7:S 2:
Product Use ▪ Herbicide
Synonyms ▪ Rimsulfuron
Manufacturer ▪ Cheminova, Inc.
 One Park Drive
 P.O. Box 110566, Research Triangle Park, NC 27709
 United States
 www.cheminova.us.com

Telephone
Emergency
Emergency
Emergency

- 1-866-303-6950 - 24-Hour Emergency Medical Emergency
- 1-800-424-9300 - 24-Hour Chemtrec - Continental U.S.
- (703) 527-3887 - 24-Hour Chemtrec - Outside U.S.

SECTION 2 - HAZARDS IDENTIFICATION
Emergency Overview

ANSI	GHS
<p>CAUTION May cause eye, skin, and gastrointestinal tract irritation. Avoid contact with skin, eyes, and clothing. Use only with adequate ventilation. Wash thoroughly after handling.</p> <p>ANSI: Irritant</p>	<p>CAUTION May cause eye, skin, and gastrointestinal tract irritation.</p> <p>Prevention Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling.</p> <p>Response If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.</p> <p>Storage/Disposal Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.</p> <p style="text-align: center;">  </p>

Physical Form
Color
Odor

- Solid
- Off-white to tan.
- Pungent

OSHA
GHS

Route Of Entry
Target Organs

NFPA:



Potential Health Effects

Inhalation

Acute (Immediate)

Chronic (Delayed)

- Irritant
- Skin Corrosion/Irritation - Category 3, Serious Eye Damage, Eye Irritation - Category 2B
- Skin/Dermal, Eye/Ocular, Ingestion/Oral
- Skin/Dermal

- Under normal conditions of use, no health effects are expected.
- No Data Available

Skin

Acute (Immediate)

Chronic (Delayed)

- May cause irritation.
- No Data Available

Eye

Acute (Immediate)

Chronic (Delayed)

- May cause irritation.
- No Data Available

Ingestion

Acute (Immediate)

Chronic (Delayed)

- May cause irritation.
- No Data Available

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components						
Chemical Name	CAS	%(weight)	UN;EINECS	LD50/LC50	EU Classification & R Phrases	Other
2-Pyridinesulfonamide, N-(((4,6-dimethoxy-2-pyrimidinyl)amino)carbonyl)-3-(ethylsulfonyl)-	122931-48-0	25%	NDA	orl-rat LD50:>5 gm/kg ihl-rat LC50:5200 mg/m3/4H skn-rbt LD50:>2 gm/kg	NDA	NDA
Non-Hazardous Components						
Chemical Name	CAS	%(weight)	UN;EINECS	LD50/LC50	EU Classification & R Phrases	Other
(Proprietary Ingredient)	Proprietary	75%	Proprietary	NDA	NDA	NDA

SECTION 4 - FIRST AID MEASURES

Inhalation

- No specific intervention is indicated, as product is not likely to be hazardous by inhalation. Remove to fresh air and contact physician if necessary.

Skin

- Call a physician or poison control center. In case of contact, immediately flush with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse.

Eye

- Call a physician or poison control center. Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes, then continue rinsing eye.

Ingestion

- No specific intervention is indicated, as product is not likely to be hazardous by ingestion. Contact a physician if necessary.

Other Information

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-303-6950 for emergency medical treatment information.

SECTION 5 - FIRE FIGHTING MEASURES**Extinguishing Media**

- LARGE FIRE: Water spray, fog or regular foam.
- SMALL FIRES: Dry chemical, CO2, water spray or regular foam.

Unsuitable Extinguishing Media

- No Data Available

Firefighting Procedures

- Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Runoff from fire control may be a pollution hazard.

Unusual Fire and Explosion Hazards

- Decomposition may occur if exposed to extreme heat or flame. Closed containers may reupture if exposed to excessive heat or flame due to build-up of external pressure. .

Hazardous Combustion Products

- Carbon dioxide, carbon monoxide, sulfur oxides, nitrogen oxides (NOx), irritating gases, particulates, and smoke.

Protection of Firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).

Flash Point**Explosion Limits****SECTION 6 - ACCIDENTAL RELEASE MEASURES****Personal Precautions**

- Restrict access to area until completion of clean-up. Ensure clean-up is conducted only by trained personnel. All clean-up personnel should wear appropriate personnel protective equipment and clothing.

Emergency Procedures

- Evacuate area. Thoroughly ventilate area.

Environmental Precautions

- Do NOT wash away into sewer. Prevent entry into waterways, sewers, basements or confined areas. Runoff from fire control or dilution water may cause pollution.

Containment/Clean-up Measures

- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Dike far ahead of spill; use dry sand to contain the flow of material.
- Stop leak if you can do it without risk.

Prohibited Materials

- No Data Available

Other Information

- Follow applicable Federal, State/Provincial, and Local laws/regulations. In case of a transportation accident in the United States, contact CHEMTREC at 1-800-424-9300 or International at 1-703-527-3887. If a spill/release in excess of EPA reportable quantity is made into the environment, immediately notify the National Response Center in the United States at 1-800-424-8002. US CERCLA Reportable Quantity (RQ): None.

SECTION 7 - HANDLING AND STORAGE**Handling**

- Wear chemically resistant protective clothing when handling. Use only in well-ventilated areas. Avoid contact with eyes, skin, and clothing. Do not breathe vapors and mists. Use caution when opening cap. Keep containers tightly closed when not in use.

Storage

- Store in a cool, dry place.

Special Packaging Materials

- Store product in original container only.

Incompatible Materials or Ignition Sources

- No Data Available

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION**Personal Protective Equipment****Pictograms**

- No Data Available

Respiratory

- None needed for normal use in well ventilated areas. Refer to Section 6 for protection during emergency spills.

Eye/Face

- Wear protective eyewear (goggles, face shield, or safety glasses).

Hands	▪ Wear appropriate gloves.
Skin/Body	▪ Wear chemical-resistant clothing and shoe coverings. An eyewash station and safety shower should be available in the immediate area.
General Industrial Hygiene Considerations	▪ Avoid breathing dust. Avoid contact with skin, eyes, and clothing. Do not eat, drinking, smoke, or apply cosmetics while working with this product. Upon completion or interruption of work, wash hands before eating, drinking, smoking, or using toilet facilities. Remove contaminated clothing and thoroughly wash it before reuse. Do not take contaminated clothing home.
Engineering Measures/Controls	▪ Use only with adequate ventilation.
Exposure Limits/Guidelines	▪ For ingredient exposure levels, see Section 2.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical Form	▪ Solid
Appearance/Description	▪ Off-white to tan solid granules.

Color : Off-white to tan.		Odor : Pungent	
Taste : NDA		Odor Threshold : NDA	
Boiling Point:	NDA	Vapor Pressure:	NDA
Melting Point:	NDA	Vapor Density:	NDA
Specific Gravity:	0 to 0	Evaporation Rate:	NDA
Density:	NDA	VOC (Wt.):	NDA
Bulk Density:	NDA	VOC (Vol.):	NDA
Water Solubility:	Miscible	Volatiles (Wt.):	NDA
Solvent Solubility:	NDA	Volatiles (Vol.):	NDA
Viscosity:	NDA	Flash Point:	NDA
Half-Life:	NDA	Flash Point Test Type:	NDA
Octanol/Water Partition coefficient:	NDA	UEL:	NDA
Coefficient of Water:	NDA	LEL:	NDA
Bioaccumulation Factor:	NDA	Autoignition:	NDA
pH:	6.17		

SECTION 10 - STABILITY AND REACTIVITY

Stability	▪ Stable under normal temperatures and pressures.
Hazardous Polymerization	▪ Hazardous polymerization will not occur.
Conditions to Avoid	▪ No Data Available
Incompatible Materials	▪ None reasonably foreseeable.
Hazardous Decomposition Products	▪ None known. Refer to Section 7.

SECTION 11 - TOXICOLOGICAL INFORMATION

BESTOW Herbicide				122931-48-0					
Test Type	Dosage	Units	Route	Species	Duration	Results	Test Class	Target Organs	Comments
Acute Toxicity	> 2000	mg/kg	Ingestion/Oral	Rat	NDA	LD50	NDA	NDA	NDA
Acute Toxicity	> 2000	mg/kg	Skin/Dermal	Rat	NDA	NDA	NDA	NDA	NDA
Acute Toxicity	> 4.62	mg/L	Inhalation	Rat	15 Minute(s)	NDA	NDA	NDA	NDA

Other Information	▪ Based on animal data, prolonged overexposures by ingestion or inhalation may cause abnormal liver function as detected by laboratory tests. Based on animal data, significant skin permeation and systemic toxicity after contact appears unlikely. There are no reports of human skin sensitization. Repeated and long-term ingestion exposures resulted in decreased body weights, increased liver, kidney, and spleen weights, mild hematological changes, and serum chemistry changes linked to liver effects. A repeated-dose teratogenicity study in rabbits resulted in maternal deaths at excessive doses. There were no effects observed in offspring. A
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one-year feeding study in dogs resulted in mild tracheal effects. Rimsulfuron did not demonstrate carcinogenic effects in long-term feeding studies in rats or mice. Rimsulfuron did not cause developmental or reproductive effects in animals. Rimsulfuron did not product genetic damage in bacterial or mammalian cell culture or in animals.

SECTION 12 - ECOLOGICAL INFORMATION

BESTOW Herbicide			122931-48-0				
Test Type	Dosage	Units	Species	Species Description	Duration	Results	Comments
Aquatic Toxicity	> 360		Fish	Rainbow Trout (<i>Salmo gairdneri</i>)	96 Hour(s)	LC50	
Terrestrial Toxicity	> 1000			Bees (<i>Apis mellifera</i>)	48 Hour(s)	LC50	
Aquatic Toxicity	= 1.2		Algae or other aquatic plants	Green Algae (<i>Selenastrum capricornutum</i>)	72 Hour(s)		IC50
Terrestrial Toxicity	> 360			Invertebrates (<i>Daphnia magna</i>)	48 Hour(s)	EC50	
Terrestrial Toxicity	= 0.005			Duckweed (<i>Lemna minor</i>)	14 Day(s)	EC50	
Aquatic Toxicity	= 1.9		Algae or other aquatic plants		96 Hour(s)		IC50

Ecological Fate

Persistence/Degradability

Bioaccumulation Potential

Mobility in Soil

Other Information

- No Data Available
- No Data Available.
- No Data Available
- No Data Available
- The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. This product is an herbicide. The active ingredient is Rimsulfuron and is considered to be toxic to many plants and non-toxic to fish, aquatic invertebrates, soil micro- and macro-organisms, birds, mammals, and insects.

SECTION 13 - DISPOSAL CONSIDERATIONS

Product

- Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment rinsewater. Do not apply where/when conditions could favor runoff. Do not apply if a severe storm is expected within 24 hours. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State, and Local regulations. Do not flush to surface water or sanitary sewer systems. Do not contaminate water, food, or feed by disposal. Waste resulting from the use of this product may be disposed of onsite or at an approved waste facility.

Packaging

- Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning. Alternatively, puncture and dispose of container in a sanitary landfill, or by incineration, or, if allowed by State/Provincial or Local authorities, by burning. If burned, stay out of smoke.

SECTION 14 - TRANSPORTATION INFORMATION

Shipping Information

DOT: Not Regulated in Transportation by DOT

IMDG:

UN/NA No. : UN 3077

Proper Shipping Name : Environmentally hazardous substance, solid, n.o.s. (Rimsulfuron)

Hazard Class : 9

Packing Group : III

Marine Pollutant : Yes

IATA: Not Regulated in Transportation by IATA (Note: This material is not regulated by IATA; however, it may be transported as UN 3077 under IATA special provision A97).

SECTION 15 - REGULATORY INFORMATION

SARA Hazard Classifications ▪ Acute

Other Information

- In the United States, this product is regulated by the US Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

SECTION 16 - OTHER INFORMATION**Disclaimer/Statement of Liability**

- The information in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

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