

# Safety data sheet

## REZULT B HERBICIDE

Revision date : 2008/02/01  
Version: 2.0

Page: 1/8  
(30083173/MDS\_CPA\_US/EN)

### 1. Substance/preparation and company identification

#### Company

BASF CORPORATION  
100 Campus Drive  
Florham Park, NJ 07932

#### 24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300  
BASF HOTLINE: 1-800-832-HELP

---

Substance number:	000000024308
Molecular formula:	C10 H11 N2 Na O3 S
Molecular weight:	262.2 g/mol
Chemical family:	benzothiadiazole
Synonyms:	bentazon

### 2. Composition/information on ingredients

---

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
50723-80-3	55.9 %	1H-2,1,3-Benzothiadiazin-4(3H)-one, 3-(1-methylethyl)-, 2,2-dioxide, sodium salt
	44.1 %	Proprietary ingredients

### 3. Hazard identification

#### Emergency overview

DANGER: Corrosive to eyes.  
HARMFUL IF SWALLOWED.  
HARMFUL IF ABSORBED THROUGH SKIN.  
MAY CAUSE ALLERGIC SKIN REACTION.  
KEEP OUT OF REACH OF CHILDREN.  
KEEP OUT OF REACH OF DOMESTIC ANIMALS.  
Avoid contact with the skin, eyes and clothing.

#### Potential health effects

See Product Label for additional precautionary statements.

#### Primary routes of exposure

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

#### Acute toxicity:

Ingestion may cause moderate to severe gastric irritation including nausea, vomiting and pain.

#### Irritation:

Corrosive to eyes. May cause slight irritation to the skin.

# Safety data sheet

## REZULT B HERBICIDE

Revision date : 2008/02/01

Version: 2.0

Page: 2/8

(30083173/MDS\_CPA\_US/EN)

Repeated dose toxicity:  
No known chronic effects.

Medical conditions aggravated by overexposure:  
No data available.

---

### 4. First-aid measures

**General advice:**

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

**If inhaled:**

Remove the affected individual into fresh air and keep the person calm.

**If on skin:**

Rinse skin immediately with plenty of water for 15 - 20 minutes.

**If in eyes:**

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

**If swallowed:**

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting. Have person sip a glass of water if able to swallow.

**Note to physician**

**Antidote:** No known specific antidote.

**Treatment:** Treat symptomatically. Probable mucosal damage may contraindicate the use of gastric lavage.

---

### 5. Fire-fighting measures

**Flash point:** > 200 °F  
**Flammability:** does not ignite

**Suitable extinguishing media:**  
foam, dry extinguishing media, carbon dioxide, water spray

**Hazards during fire-fighting:**

carbon monoxide, carbon dioxide, Hydrocarbons, sulfur oxides, nitrogen oxides  
If product is heated above decomposition temperature, toxic vapours will be released.

**Protective equipment for fire-fighting:**

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

**Further information:**

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways.

# Safety data sheet

## REZULT B HERBICIDE

Revision date : 2008/02/01  
Version: 2.0

Page: 3/8  
(30083173/MDS\_CPA\_US/EN)

---

### 6. Accidental release measures

#### Personal precautions:

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

#### Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

#### Cleanup:

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

---

### 7. Handling and storage

#### Handling

##### General advice:

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

##### Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

#### Storage

##### General advice:

Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

##### Storage incompatibility:

General: Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

##### Storage stability:

Storage duration: 60 Months

If an expiry date is mentioned on the packaging/label this takes priority over the statements on storage duration in this safety data sheet. The stated storage temperature should be noted.

# Safety data sheet

## REZULT B HERBICIDE

Revision date : 2008/02/01  
Version: 2.0

Page: 4/8  
(30083173/MDS\_CPA\_US/EN)

### 8. Exposure controls and personal protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

#### Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

#### Personal protective equipment

#### RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

##### Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

##### Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

##### Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

##### Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

##### General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

### 9. Physical and chemical properties

Form:	liquid	
Odour:	uncharacteristic, mild, sweetish	
Colour:	yellowish to brown, clear	
pH value:	7.5 - 9	( 20 °C) (measured with the undiluted substance)
crystallization temperature:	5 °C	
Boiling point:	approx. 100 °C	( 1 ATM) Information applies to the solvent.
Vapour pressure:	approx. 17.5 mmHg	( 20 °C) Information applies to the solvent.
Density:	1.233 g/cm <sup>3</sup>	( 20 °C)

# Safety data sheet

## REZULT B HERBICIDE

Revision date : 2008/02/01

Page: 5/8

Version: 2.0

(30083173/MDS\_CPA\_US/EN)

Partitioning coefficient n-octanol/water (log Pow):  
Solubility in water:

Not applicable  
fully soluble

### 10. Stability and reactivity

**Conditions to avoid:**

Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme temperatures. Avoid prolonged exposure to extreme heat. Avoid contamination. Avoid electro-static discharge. Avoid prolonged storage.

**Substances to avoid:**

acids, bases

**Hazardous reactions:**

The product is chemically stable.

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

**Decomposition products:**

No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

**Thermal decomposition:**

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, Sulphur dioxide, nitrogen oxide, nitrogen dioxide, Hydrocarbons  
Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. If product is heated above decomposition temperature hazardous fumes may be released.

**Corrosion to metals:**

Corrosive effects to metal are not anticipated.

**Oxidizing properties:**

not fire-propagating

### 11. Toxicological information

Acute toxicity

**Oral:**

LD50/rat/male/female: 1,260 mg/kg

**Inhalation:**

LC50/rat: > 7.1 mg/l / 4 h  
No mortality was observed.

**Dermal:**

LD50/rat: > 2,000 mg/kg  
No mortality was observed.

**Skin irritation:**

rabbit: non-irritant

**Eye irritation :**

rabbit: Corrosive.

**Sensitization:**

# Safety data sheet

## REZULT B HERBICIDE

Revision date : 2008/02/01

Version: 2.0

Page: 6/8

(30083173/MDS\_CPA\_US/EN)

Guinea pig maximization test/: Caused skin sensitization in animal studies.

Genetic toxicity:

*Information on: bentazone*

*No mutagenic effect was found in various tests with bacteria and mammals.*

Carcinogenicity:

*Information on: bentazone*

*Not carcinogenic.*

Reproductive toxicity:

*Information on: bentazone*

*The results of animal studies gave no indication of a fertility impairing effect.*

Developmental toxicity/teratogenicity:

*Information on: bentazone*

*No teratogenic effects reported.*

---

## 12. Ecological information

*Information on: bentazone*

*Evaluation: Not readily biodegradable (by OECD criteria).*

### Environmental toxicity

*Information on: bentazone*

*Acute and prolonged toxicity to fish:*

*Rainbow trout/LC50 (96 h): > 100 mg/l*

*Information on: bentazone*

*Acute toxicity to aquatic invertebrates:*

*Daphnia magna/EC50 (48 h): 125 mg/l*

*Information on: bentazone*

*Toxicity to aquatic plants:*

*green algae/EC50 (72 h): 33.3 mg/l*

*Information on: bentazone*

*Other terrestrial non-mammals:*

*bobwhite quail/LD50: 1,140 mg/kg*

*Acutely harmful to terrestrial organisms.*

Other ecotoxicological advice:

The ecological data given are those of the active ingredient. Do not release untreated into natural waters.

---

## 13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated.

Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law.

# Safety data sheet

## REZULT B HERBICIDE

Revision date : 2008/02/01

Version: 2.0

Page: 7/8

(30083173/MDS\_CPA\_US/EN)

If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

RCRA: This product is not regulated by RCRA.

---

### 14. Transport information

Reference Bill of Lading

---

### 15. Regulatory information

#### Federal Regulations

Registration status:  
TSCA, US released / exempt

OSHA hazard category: Acute target organ effects reported, Sensitizer, Toxic - inhalation

SARA hazard categories (EPCRA 311/312): Acute, Chronic

#### State regulations

CA Prop. 65:  
There are no listed chemicals in this product.

---

### 16. Other information

Refer to product label for EPA registration number.

Recommended use: herbicide

---

Local contact information  
Product Stewardship  
919 547-2000

**IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED**

# Safety data sheet

## REZULT B HERBICIDE

Revision date : 2008/02/01

Page: 8/8

Version: 2.0

(30083173/MDS\_CPA\_US/EN)

BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY BASF HEREUNDER ARE GIVEN GRATIS AND BASF ASSUMES NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.  
END OF DATA SHEET