

# Safety Data Sheet

## ARMEZON

Revision date : 2013/06/12  
Version: 2.0

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(30549386/SDS\_CPA\_US/EN)

### 1. Product and Company Identification

Company  
BASF CORPORATION  
100 Park Avenue  
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information  
CHEMTREC: 1-800-424-9300  
BASF HOTLINE: 1-800-832-HELP (4357)

Substance number: 000000104631  
Molecular formula: C16 H17 N3 O5 S  
Chemical family: phenyl pyrazole, derivative  
Synonyms: topramezone (active ingredient)

### 2. Hazards Identification

#### Emergency overview

CAUTION:  
May cause moderate but temporary irritation to the eyes.  
HARMFUL IF SWALLOWED.  
HARMFUL IF ABSORBED THROUGH SKIN.  
KEEP OUT OF REACH OF CHILDREN.  
Avoid contact with the skin, eyes and clothing.

See Product Label for additional precautionary statements.

State of matter: liquid  
Colour: beige  
Odour: aromatic

#### Potential health effects

##### **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:**

Slightly toxic after single ingestion. Slightly toxic after short-term skin contact. Slightly toxic after short-term inhalation.

##### **Irritation / corrosion:**

May cause slight irritation to the skin. May cause moderate but temporary irritation to the eyes.

##### **Sensitization:**

There is no evidence of a skin-sensitizing potential.

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### **Medical conditions aggravated by overexposure:**

Individuals with pre-existing diseases of the respiratory system, skin or eyes may have increased susceptibility to excessive exposures.

### **Potential environmental effects**

#### **Aquatic toxicity:**

There is a high probability that the product is not acutely harmful to fish. There is a high probability that the product is not acutely harmful to aquatic invertebrates. Very toxic (acute effect) to aquatic plants.

#### **Terrestrial toxicity:**

With high probability not acutely harmful to terrestrial organisms.

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### 3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
210631-68-8	29.7 %	Topramezone
	70.3 %	Proprietary ingredients

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### 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.

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### 5. Fire-Fighting Measures

Flash point:

(Directive 92/69/EEC, A.9) No flash point - Measurement made up to the boiling point. (Directive 92/69/EEC, A.15)

Autoignition:

430 °C

Lower explosion limit:

As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

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Upper explosion limit:

As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

**Suitable extinguishing media:**

foam, dry powder, carbon dioxide, water spray

**Hazards during fire-fighting:**

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide, Sulphur dioxide, Hydrogen chloride, hydrogen fluoride, halogenated hydrocarbons, Hydrocarbons,

If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released in case of fire.

**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.

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## 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.

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## 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.

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

#### **Temperature tolerance**

Protect from temperatures below: 0 °C

The product can crystallize below the limit temperature.

Protect from temperatures above: 40 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

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## 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) organic vapour/particulate respirator. 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.

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### 9. Physical and Chemical Properties

Form:	suspension	
Odour:	aromatic	
Colour:	beige	
pH value:	approx. 2 - 4	( 1 %(m), 20 °C)
Boiling point:	approx. 100 °C	
Vapour pressure:	approx. 23.3 hPa	( 20 °C) Information applies to the solvent.
Density:	approx. 1.13 g/cm <sup>3</sup>	( 20 °C)
	approx. 9.4303	( 68 °F)
	Lb/USg	
Vapour density:		not determined
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Viscosity, dynamic:	approx. 65.7 mPa.s	( 20 °C)
Solubility in water:		dispersible
Molar mass:	363.4 g/mol	

### 10. Stability and Reactivity

#### Conditions to avoid:

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

#### Substances to avoid:

strong acids, strong bases, strong oxidizing agents

#### 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, nitrogen dioxide, nitrogen oxide, Sulphur dioxide, Hydrocarbons

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released.

#### Corrosion to metals:

Corrosive effects to metal are not anticipated.

#### Oxidizing properties:

Not an oxidizer.

### 11. Toxicological information

#### Acute toxicity

##### Oral:

Type of value: LD50

Species: rat (male/female)

Value: > 2,000 mg/kg (OECD Guideline 423)

No mortality was observed.

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### Inhalation:

Type of value: LC50  
Species: rat (male/female)  
Value: > 5.8 mg/l (OECD Guideline 403)  
Exposure time: 4 h  
An aerosol was tested.  
No mortality was observed.

### Dermal:

Type of value: LD50  
Species: rat (male/female)  
Value: > 4,000 mg/kg (OECD Guideline 402)

### Irritation / corrosion

#### Skin:

May cause slight irritation to the skin.

#### Eye:

May cause moderate but temporary irritation to the eyes.

### Sensitization:

Mouse Local Lymph Node Assay (LLNA)  
Species: mouse  
Result: Skin sensitizing effects were not observed in animal studies.  
Method: OECD Guideline 429

### Repeated dose toxicity

*Information on: Topramezone technical*  
*Assessment of repeated dose toxicity:*  
*Adaptive effects were observed after repeated exposure in animal studies.*

### Carcinogenicity

*Information on: Topramezone*  
*When given in high doses, the substance was carcinogenic in animal studies. Based on its mechanism of action, a carcinogenic potential is not expected after exposure to low doses.*

### Reproductive toxicity

*Information on: Topramezone*  
*Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.*

### Development:

*Information on: Topramezone*  
*The results of animal studies gave indication of a developmental toxic/teratogenic effects with high doses.*

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## 12. Ecological Information

### Fish

*Information on: Topramezone*  
*Acute:*

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*OECD 203; ISO 7346; 84/449/EEC, C.1 static  
Oncorhynchus mykiss/LC50 (96 h): > 100 mg/l  
Nominal concentration.*  
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### **Aquatic invertebrates**

Acute:  
Mysid shrimp/EC50 (96 h): 5.2 mg/l

*Information on: Topramezone  
Acute:  
Daphnia magna/EC50 (48 h): > 100 mg/l*  
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### **Aquatic plants**

*Information on: Topramezone  
Toxicity to aquatic plants:  
OECD Guideline 201 green algae/EC50 (96 h): 67.7 mg/l*  
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### **Bioaccumulation**

*Information on: Topramezone technical  
OPPTS 850.1730 (EPA Guideline)  
sunfish, bluegill (42 d) Bioconcentration factor 0.69  
Does not significantly accumulate in organisms.*  
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### **Environmental mobility:**

*Information on: Topramezone technical  
Assessment transport between environmental compartments:  
Following exposure to soil, the product trickles away and can - dependant on degradation - be transported to deeper soil areas with larger water loads.*  
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### **Other adverse effects:**

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

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## **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. 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.

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### 14. Transport Information

#### Land transport

USDOT

Not classified as a dangerous good under transport regulations

#### Sea transport

IMDG

Hazard class: 9  
Packing group: III  
ID number: UN 3082  
Hazard label: 9, EHSM  
Marine pollutant: YES  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(contains TOPRAMEZONE)

#### Air transport

IATA/ICAO

Hazard class: 9  
Packing group: III  
ID number: UN 3082  
Hazard label: 9, EHSM  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(contains TOPRAMEZONE)

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### 15. Regulatory Information

#### Federal Regulations

##### Registration status:

Crop Protection TSCA, US released / exempt

Chemical TSCA, US blocked / not listed

OSHA hazard category: Skin and/or eye irritant;

EPCRA 311/312 (Hazard categories): Acute;

#### State regulations

##### CA Prop. 65:

CA PROP 65: An assessment has determined that there is no significant risk present.

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### 16. Other Information

Refer to product label for EPA registration number.



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Recommended use: herbicide

**NFPA Hazard codes:**

Health : 1      Fire: 1      Reactivity: 1      Special:

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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**SDS Prepared by:**

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SDS Prepared on: 2013/06/12

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