

# Safety data sheet

## REGENT TS

Revision date : 2005/04/15  
Version: 1.0

Page: 1/9  
(30257083/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: (800) 424-9300  
BASF HOTLINE: (800) 832-HELP

Substance number: 000000130574  
Molecular formula: C<sub>12</sub> H<sub>4</sub> Cl<sub>2</sub> F<sub>6</sub> N<sub>4</sub> O S  
Molecular weight: 437.15 g/mol  
Chemical family: phenyl pyrazole  
Synonyms: fipronil (active ingredient)

### 2. Composition/information on ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
120068-37-3	56.0 %	1H-Pyrazole-3-carbonitrile, 5-amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-4-[(trifluoromethyl)sulfinyl]
	44.0 %	Inert ingredients

### 3. Hazard identification

#### Emergency overview

WARNING: CAUSES EYE IRRITATION.  
KEEP OUT OF REACH OF CHILDREN.  
KEEP OUT OF REACH OF DOMESTIC ANIMALS.  
MAY BE FATAL IF INHALED.  
MAY BE FATAL IF ABSORBED THROUGH SKIN.  
MAY BE FATAL IF SWALLOWED.  
Do not get in eyes, on skin, or on clothing.  
Avoid inhalation of dusts/mists/vapours.  
Can sensitize the skin and/or respiratory tract of allergic persons.

#### 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:

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

#### Irritation:

# Safety data sheet

## REGENT TS

Revision date : 2005/04/15  
Version: 1.0

Page: 2/9  
(30257083/MDS\_CPA\_US/EN)

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

**Sensitization:**

Caused skin sensitization in animal studies.

**Medical conditions aggravated by overexposure:**

Inhalation of dust could aggravate existing respiratory conditions.

**Potential environmental effects**

**Aquatic toxicity:**

Very toxic (acute effect) to fish.

Very toxic (acute effect) to aquatic invertebrates.

Very toxic (acute effect) to aquatic plants.

**Terrestrial toxicity:**

Acutely toxic to birds.

Acutely toxic to bees.

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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:**

If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting unless told to by a poison control center or doctor. Have person sip a glass of water if able to swallow. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

**Note to physician**

Symptoms:	shortness of breath, CNS irritability, lethargy, tremors, convulsions
Antidote:	No known specific antidote.
Treatment:	Treat symptomatically. Anticonvulsant therapy as routinely administered to humans. Diazepam may be useful in controlling convulsions. Due to the slow elimination of the active compound and its metabolites, the treatment must be continued for several days, gradually decreasing the dose of anticonvulsant based on the clinical response.

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# Safety data sheet

## REGENT TS

Revision date : 2005/04/15  
Version: 1.0

Page: 3/9  
(30257083/MDS\_CPA\_US/EN)

### 5. Fire-fighting measures

Flash point: > 207 °F

**Suitable extinguishing media:**

foam, dry extinguishing media, carbon dioxide, water spray

**Hazards during fire-fighting:**

carbon monoxide, Carbon dioxide, nitrogen oxides, sulfur oxides, acid halides

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.

**NFPA Hazard codes:**

Health : 2      Fire: 1      Reactivity: 1      Special:

### 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.

# Safety data sheet

## REGENT TS

Revision date : 2005/04/15  
Version: 1.0

Page: 4/9  
(30257083/MDS\_CPA\_US/EN)

### 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 up 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.

##### **Temperature tolerance**

Protect from temperatures below: 14 °F  
Protect from temperatures above: 129 °F

### 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.

# Safety data sheet

## REGENT TS

Revision date : 2005/04/15  
Version: 1.0

Page: 5/9  
(30257083/MDS\_CPA\_US/EN)

### 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.

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## 9. Physical and chemical properties

Form:	liquid, slurry	
Odour:	odourless	
Colour:	pink	
pH value:	6.2	( 13.5 g/l)
crystallization temperature:	> -10 °C	
Density:	1.35 g/cm <sup>3</sup>	( 25 °C)
Solubility in water:		miscible

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## 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.

# Safety data sheet

## REGENT TS

Revision date : 2005/04/15  
Version: 1.0

Page: 6/9  
(30257083/MDS\_CPA\_US/EN)

**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, Hydrogen chloride, nitrogen monoxide, Sulphur dioxide, nitrogen dioxide, hydrogen fluoride

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.

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## 11. Toxicological information

**Acute toxicity****Oral:**

LD50/rat: 275 mg/kg

**Inhalation:**

*Information on: Fipronil*

*LC50/rat/male/female: 0.682 mg/l / 4 h*

**Dermal:**

LD50/rat: 841 mg/kg

**Skin irritation:**

rabbit: Slightly to moderately irritating.

**Eye irritation :**

rabbit: Mildly irritating.

**Sensitization:**

guinea pig: Caused sensitization in animal studies.

**Chronic toxicity****Genetic toxicity:**

# Safety data sheet

## REGENT TS

Revision date : 2005/04/15  
Version: 1.0

Page: 7/9  
(30257083/MDS\_CPA\_US/EN)

*Information on: Fipronil*

*Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.*

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**Carcinogenicity:**

*Information on: Fipronil*

*In long-term studies in rats the substance induced thyroid tumors.*

*In long-term studies in rodents exposed to high doses, a tumorigenic effect was found; however, these results are thought to be due to a rodent-specific liver effect that is not relevant to humans.*

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**Reproductive toxicity:**

*Information on: Fipronil*

*Animal studies gave no indication of a fertility impairing effect at doses which were not toxic to the parental animals.*

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**Developmental toxicity/teratogenicity:**

*Information on: Fipronil*

*No indications of a developmental toxic / teratogenic effect were seen in animal studies.*

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**Other information:**

Misuse can be harmful to health.

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## 12. Ecological information

### Environmental fate and transport

**Biodegradation:**

Evaluation: Not readily biodegradable (by OECD criteria).

*Information on: Fipronil*

*Acute and prolonged toxicity to fish:*

*Rainbow trout/LC50 (96 h): 0.25 mg/l*

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*Information on: Fipronil*

*Acute toxicity to aquatic invertebrates:*

*Daphnia magna/EC50 (48 h): 0.19 mg/l*

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*Information on: Fipronil*

*Toxicity to aquatic plants:*

*green algae/EC50 (72 h): 0.068 mg/l*

*Common duckweed/EC50 (336 h): > 0.160 mg/l*

*green algae/EC50 (120 h): > 0.140 mg/l*

*Algae/EC50 (120 h): > 0.170 mg/l*

*Algae/EC50 (120 h): > 0.120 mg/l*

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## Safety data sheet

### REGENT TS

Revision date : 2005/04/15  
Version: 1.0

Page: 8/9  
(30257083/MDS\_CPA\_US/EN)

*Information on: Fipronil*  
*Other terrestrial non-mammals:*  
*Honey bee/LD50 (48 d): 0,00593 ug/bee (contact)*  
*Honey bee/LD50 (48 d): 0,00417 ug/bee (oral)*  
*bobwhite quail/LD50: 11.3 mg/kg*  
*ring necked pheasant/LD50: 31 mg/kg*  
*redlegged partridge/LD50: 34 mg/kg*  
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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.

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### 14. Transport information

Reference Bill of Lading

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### 15. Regulatory information

**Federal Regulations**

**Registration status:**

TSCA, US released / exempt

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

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### 16. Other information

**Refer to product label for EPA registration number.**

Recommended use: crop protection product

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## Safety data sheet

### REGENT TS

Revision date : 2005/04/15  
Version: 1.0

Page: 9/9  
(30257083/MDS\_CPA\_US/EN)

**Local contact information**

Product Stewardship  
919-547-2000

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