

# Safety Data Sheet

## DRIVE® 75 DF HERBICIDE

Revision date : 2012/03/14  
Version: 2.2

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(30233232/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: 000000063435  
Molecular formula: C<sub>10</sub> H<sub>2</sub> O<sub>2</sub> N Cl<sub>2</sub>  
Chemical family: quinoline derivative  
Synonyms: quinclorac

### 2. Hazards Identification

#### Emergency overview

CAUTION:  
HARMFUL IF INHALED.  
HARMFUL IF SWALLOWED.  
HARMFUL IF ABSORBED THROUGH SKIN.  
May cause moderate but temporary irritation to the eyes.  
Prolonged or repeated skin contact may cause sensitization or allergic reactions.  
KEEP OUT OF REACH OF CHILDREN.  
KEEP OUT OF REACH OF DOMESTIC ANIMALS.  
Avoid contact with the skin, eyes and clothing.  
Avoid inhalation of dusts/mists/vapours.

See Product Label for additional precautionary statements.

State of matter: solid  
Colour: tan  
Odour: mild, characteristic

#### 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. Relatively nontoxic after short-term inhalation.

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

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

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### **Sensitization:**

Skin sensitizing effects were not observed in animal studies. Some individuals may develop an allergic dermatitis.

### **Potential environmental effects**

#### **Aquatic toxicity:**

There is a high probability that the product is not acutely harmful to aquatic organisms.

#### **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>
84087-01-4	75.0 %	quinclorac
14808-60-7	<= 1.0 %	crystalline silica
	<= 25.0 %	Proprietary ingredients
13463-67-7	<= 0.2 %	Titanium dioxide

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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. Assist in breathing if necessary.

#### **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:**

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

#### **Note to physician**

Antidote: No known specific antidote.  
Treatment: Treat symptomatically.

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### 5. Fire-Fighting Measures

Flash point:	not applicable
Lower explosion limit:	not determined
Upper explosion limit:	not determined

#### **Suitable extinguishing media:**

foam, dry powder, carbon dioxide, water spray

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### **Hazards during fire-fighting:**

carbon monoxide, carbon dioxide, nitrogen dioxide, nitrogen oxide, Hydrogen chloride, halogenated hydrocarbons, Hydrocarbons,

If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released if the product is involved in a 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. 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.

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### 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 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.

## 8. Exposure Controls and Personal Protection

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

### Components with workplace control parameters

crystalline silica	OSHA	TWA value 2.4 millions of particles per cubic foot of air Respirable ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation. TWA value 0.1 mg/m3 Respirable ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation. TWA value 0.3 mg/m3 Total dust ; The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.
Titanium dioxide	ACGIH OSHA ACGIH	TWA value 0.025 mg/m3 Respirable fraction ; PEL 15 mg/m3 Total dust ; TWA value 10 mg/m3 ;

### 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.

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### 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:	granules, solid	
Odour:	mild, characteristic	
Colour:	tan	
pH value:	3.2	( 10 g/l)
Melting point:		not applicable, The substance / product decomposes therefore not determined.
Boiling point:		The product is a non-volatile solid., not applicable
Vapour pressure:		negligible
Bulk density:	565 - 593 g/l	
Vapour density:		not determined
Solubility in water:	64 mg/l	(approx. 20 °C)
Molar mass:	239.04 g/mol	

## 10. Stability and Reactivity

### Dust explosion class:

Kst value of 0 (St 0)

### Conditions to avoid:

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures. This product may form an explosive mixture if: 1. the dust is suspended in the atmosphere as a dust cloud AND 2. the concentration of the dust is above the lower explosion limit (LEL) AND 3. the limiting oxygen concentration (LOC) is exceeded.

### Substances to avoid:

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:

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

### Thermal decomposition:

502.7 °F (VDI 2263, sheet 1, 1.4.1)

Possible thermal decomposition products:

carbon monoxide, carbon dioxide, nitrogen oxide, nitrogen dioxide, Hydrogen chloride, halogenated hydrocarbons, Hydrocarbons

Stable at ambient temperature. If product is heated above decomposition temperature toxic vapours may be released. Risk of exothermic self-accelerating decomposition above the indicated temperature.

### Corrosion to metals:

Corrosive effects to metal are not anticipated.

### Oxidizing properties:

Not an oxidizer.

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### 11. Toxicological information

#### Acute toxicity

##### Oral:

Type of value: LD50  
Species: rat (male/female)  
Value: > 2,200 mg/kg  
No mortality was observed.

##### Inhalation:

Type of value: LC50  
Species: rat  
Value: > 6.1 mg/l  
Exposure time: 4 h  
No mortality was observed.

##### Dermal:

Type of value: LD50  
Species: rat  
Value: > 2,000 mg/kg  
No mortality was observed.

#### Irritation / corrosion

##### Skin:

Species: rabbit  
Result: Irritating.

##### Eye:

Species: rabbit  
Result: moderately irritating

##### Sensitization:

modified Buehler test  
Species: guinea pig  
Result: Non-sensitizing.

#### Genetic toxicity

*Information on: quinclorac*

*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.*

#### Carcinogenicity

*Information on: quinclorac*

*In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.*

#### Reproductive toxicity

*Information on: quinclorac*

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

#### Development:

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*Information on: quinclorac*  
*No indications of a developmental toxic / teratogenic effect were seen in animal studies.*  
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## 12. Ecological Information

### Fish

*Information on: quinclorac*  
*Acute:*  
*EPA 72-1 static*  
*Oncorhynchus mykiss/LC50 (96 h): > 100 mg/l*  
*EPA 72-1 static*  
*Lepomis macrochirus/LC50 (96 h): > 100 mg/l*  
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### Aquatic invertebrates

*Information on: quinclorac*  
*Acute:*  
*OECD Guideline 202, part 1 static*  
*Daphnia magna/EC50 (48 h): > 100 mg/l*  
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### Aquatic plants

*Information on: quinclorac*  
*Toxicity to aquatic plants:*  
*OECD Guideline 201 static*  
*green algae/EC50 (96 h): > 100 mg/l*  
*OECD Guideline 201 Algae/EC50 (96 h): > 100 mg/l*  
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### Non-Mammals

*Information on: quinclorac*  
*Other terrestrial non-mammals:*  
*mallard duck/LC50: > 5,000 ppm*  
*With high probability not acutely harmful to terrestrial organisms.*  
*Honey bee/LD50: > 100 ug/bee*  
*With high probability not acutely harmful to terrestrial organisms.*  
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### Degradability / Persistence Biological / Abiological Degradation

Evaluation: Not readily biodegradable (by OECD criteria).

### 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.

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### 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

Not classified as a dangerous good under transport regulations

### Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

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## 15. Regulatory Information

### Federal Regulations

#### Registration status:

Chemical TSCA, US blocked / not listed

Crop Protection TSCA, US released / exempt

**OSHA hazard category:** IARC 1, 2A or 2B carcinogen; NTP listed carcinogen; Chronic target organ effects reported; ACGIH TLV established

**EPCRA 311/312 (Hazard categories):** Acute; Chronic

### State regulations

#### State RTK

MA, NJ, PA  
MA, NJ, PA

#### CAS Number

14808-60-7  
13463-67-7

#### Chemical name

crystalline silica  
Titanium dioxide

#### **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.**

Recommended use: herbicide

#### HMIS III rating

Health: 3<sup>+</sup> Flammability: 1 Physical hazard: 0

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

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#### MSDS Prepared by:

BASF NA Product Regulations

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MSDS Prepared on: 2012/03/14

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