



# MATERIAL SAFETY DATA SHEET

## CIRRUS CS

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Version : 3

Date : 28/6/2010

Supersedes : 17/3/2010

Product code :6270

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : CIRRUS CS  
Recommended uses : Herbicide  
Name : FMC CHEMICAL Sprl  
Address : Boulevard de la Plaine, 9/3  
1050 BRUXELLES  
BELGIQUE  
Telephone number : 00 32 2 6459584  
Telefax number : 00 32 2 6459655  
E-mail : msdsinfo@fmc.com  
EMERGENCY TELEPHONE NUMBER (Europe) : 00 32 14 58 45 45

### 2. HAZARDS IDENTIFICATION

#### MOST IMPORTANT HAZARDS :

Adverse human health effects : To our knowledge, no specific risk when handled in accordance with good occupational hygiene and safety practice.

\* Environmental effects : May cause long-term adverse effects in the aquatic environment.

#### Physical and chemical hazards :

- Fire or explosion : Slightly combustible. May support combustion at elevated temperatures  
Burning and thermal decomposition may form toxic by-products

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### MIXTURE :

Chemical nature : Herbicide based on clomazone

#### Hazardous constituents :

Substance name	Contents	CAS No / EC No / Index No	Symbol(s)	R-Phrase(s)
<u>Clomazone</u>	: < 35 %	81777-89-1 / — / —	Xn N	20/22-50/53
<u>Sodium nitrate</u>	: 5 %	7631-99-4 / 231-554-3 / —	O Xn	08-22-36/37/38
<u>Calcium chloride</u>	: 5 %	10043-52-4 / 233-140-8 / 017-013-00-2	Xi	36

### 4. FIRST AID MEASURES

Inhalation : Move the affected person to the fresh air  
In the event of coughing and slight breathlessness:  
Call a doctor

Skin contact : Remove all contaminated clothing and footwear  
Wash with soap and water

Eye contact : Rinse with plenty of water immediately  
If irritation persists, consult an eye specialist

Ingestion : Rinse mouth out with water  
If the person is fully conscious, make him/her drink water. Never give an unconscious person anything to drink  
Consult a doctor



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### 5. FIRE-FIGHTING MEASURES

- |                                  |  |
|----------------------------------|--|
| Suitable extinguishing media :   | Foam<br>Carbon dioxide (CO <sub>2</sub> )<br>Powders   |
| Specific hazards :               | Toxic fumes are released   |
| Specific fire fighting methods : | Isolate fire area. Evacuate downwind<br>Do not dispose of fire-fighting water in the environment<br>Do not attempt to fight the fire without suitable protective equipment<br>Do not breathe fumes |
| Protection of fire-fighters :    | Self-contained breathing apparatus<br>Complete protective clothing   |

### 6. ACCIDENTAL RELEASE MEASURES

- |                               |   |
|-------------------------------|---|
| Personal precautions :        | Avoid contact with skin and eyes<br>Do not breathe vapours<br>Do not attempt to intervene without a suitable protective equipment   |
| * Environmental precautions : | Do not allow product to spread into the environment<br>Contain the spilled material by bunding (product is hazardous for the environment)   |
| Methods for cleaning up :     |   |
| - Neutralization :            | Absorb spillage with:<br>- inert absorbent material<br>- earth or sand<br>Neutralize non-recoverable product with :<br>- a 20 % solution of potassium hydroxide in methanol<br>Cover the treated area with plastic and let stand for 24 h. Remove the covering and place in a drum for a later disposal |
| - Cleaning/decontamination :  | Wash with plenty of water and detergent   |
| - Disposal :                  | Dispose of contaminated materials in accordance with current regulations  |

### 7. HANDLING AND STORAGE

#### HANDLING

- |                      |   |
|----------------------|---|
| Technical measures : | Vapour extraction at source   |
| Precautions :        | Avoid any direct contact with the product<br>Work in a well-ventilated area |

#### STORAGE

- |                      |  |
|----------------------|--|
| Storage conditions : |  |
| - Recommended :      | Store :<br>- in a cool and dry area<br>- in a well-ventilated area<br>- protected from frost.<br>- away from food and drinks and animal foodstuffs<br>- out of reach of children |

- |                       |                    |
|-----------------------|--------------------|
| Packaging materials : |                    |
| - Recommended :       | Original packaging |

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- |                                 |   |
|---------------------------------|---|
| Engineering measures :          | Ensure good ventilation of the work station<br>Extraction to remove vapours at their source |
| Personal protective equipment : |   |
| - Respiratory protection :      | If the ventilation is suitable, it is not essential to wear respiratory equipment           |
| - Hand protection :             | Neoprene protective gloves  |

**FMC CHEMICAL Sprl**

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### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION (continued)

- |                              |   |
|------------------------------|---|
| - Eye protection :           | Nitrile-rubber protective gloves                                  |
| - Skin and body protection : | Safety goggles  |
| Hygiene measures :           | Impermeable clothing  |
|                              | Always wash your hands after handling the product                 |
|                              | Do not eat, drink or smoke during use                             |
|                              | Separate working clothes from town clothes and launder separately |

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- |                                |   |
|--------------------------------|---|
| Physical state :               | Homogeneous liquid                                |
| Colour :                       | light beige                                       |
| Odour :                        | slight aromatic                                   |
| pH :                           | 8.87 (Aqueous dispersion - 1 %)                   |
| Flammability characteristics : |   |
| - Flash point :                | > 79 °C   |
| - Auto-ignition temperature :  | 382 °C  |
| Specific gravity :             | 1.1712 g/cm <sup>3</sup> (20 °C)                  |
| Solubility :                   |   |
| - in water :                   | Dispersible                                       |
| Dynamic viscosity :            | 115 - 746 mPa.s (20 °C)<br>82 - 553 mPa.s (40 °C) |
| Surface tension :              | 46.7 mN/m (25 °C)<br>44.2 mN/m (40 °C)            |

### 10. STABILITY AND REACTIVITY

- |                                     |   |
|-------------------------------------|---|
| Stability :                         | Stable at ambient temperature and under normal conditions of use  |
| Hazardous reactions :               |   |
| - Hazardous decomposition products: | On thermal decomposition (pyrolysis), releases :<br>Carbon oxides (CO, CO <sub>2</sub> )<br>Nitrogen oxides<br>Hydrochloric acid , Chlorine |

### 11. TOXICOLOGICAL INFORMATION

- |                  |  |
|------------------|--|
| Acute toxicity : | LC 50 inhalation / 4h (rat) : > 5.21 mg/l<br>(maximum attainable concentration - zero mortality)<br>LD 50 skin (Rat) : > 5000 mg/kg<br>LD 50 oral (rat) : > 5000 mg/kg |
| Local effects :  | Not irritating to rabbits on cutaneous application.<br>Not irritating to rabbits on ocular application.  |
| Sensitization :  | Does not cause sensitisation   |

### 12. ECOLOGICAL INFORMATION

- |                   |  |
|-------------------|--|
| DEGRADABILITY :   |  |
| Persistence:      | Clomazone :<br>Half-life (in water) : 1.5 - 7 d<br>Half-life (in soil) : 24 - 84 d |
| BIOACCUMULATION : |  |



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#### 12. ECOLOGICAL INFORMATION

(continued)

Octanol/water partition coefficient :

Clomazone : 2.5

Bioconcentration factor :

Clomazone : BCF : 27 - 40

ECOTOXICITY :

\* Effects on the aquatic environment :

Product as is :

May cause long-term adverse effects in the aquatic environment.

LC 50 (Fish : rainbow trout) / 96h : 592.7 mg/l

EC 50 (Daphnia) / 48h : 491.3 mg/l

EC 50 (Algae) / 96 h : 160.85 mg/l

Effects on terrestrial animals:

Clomazone :

LD50(birds) : &gt; 2510 mg/kg

#### 13. DISPOSAL CONSIDERATIONS

WASTE FROM PRODUCT :

Destruction/Disposal :

Dispose of in accordance with relevant local regulations

Incinerate at a licensed installation

CONTAMINATED PACKAGING :

Decontamination/cleaning :

Clean with water

Destruction/disposal :

Reuse or recycle following washing

NOTE :

The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal

#### 14. TRANSPORT INFORMATION

INTERNATIONAL REGULATIONS :

- UN No.

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Clomazone )

Land transportation :

- Rail/road (RID/ADR) :

Class : 9

Classification code : M6

Packing group : III

Hazard identification number : 90

Labelling : 9

Sea (IMO/IMDG) :

Class : 9

Packing group : III

Labelling : 9

Marine pollutant : YES

Air (ICAO-IATA) :

Class : 9

Packing group : III

Labelling : 9

#### 15. REGULATORY INFORMATION

EC LABELLING :

Identification of the hazardous product :

Contains :

Active ingredient(s) : Clomazone : 360 g/l

- R phrases :

R53 : May cause long-term adverse effects in the aquatic environment.

- S phrases :

S13 : Keep away from food, drink and animal feedingstuffs.

S2 : Keep out of the reach of children.

S20/21 : When using, do not eat, drink or smoke.

S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

- Additional phrases :

The following must appear on the label :

**FMC CHEMICAL Sprl**

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### 15. REGULATORY INFORMATION

(continued)

To avoid risks to man and the environment, comply with the instructions for use  
Safety data sheet available for professional user on request

The regulatory information given above only indicate the principal regulations specifically applicable to the product described in the MSDS

The cited basic community texts are being updated and transcribed in national law Refer to all applicable international, national and local regulations or provisions The user's attention is drawn to the possible existence of additional provisions which complete these regulations

### 16. OTHER INFORMATION

R phrases text of § 3 :

R8 : Contact with combustible material may cause fire.

R20/22 : Harmful by inhalation and if swallowed.

R22 : Harmful if swallowed.

R36 : Irritating to eyes.

R36/37/38 : Irritating to eyes, respiratory system and skin.

R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

\* Update :

This sheet was updated (refer to the date at the top of this page)

Texts which have been modified since the previous version are marked with an asterisk (\*)

Registered trademarks :

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This sheet complements the technical sheets but does not replace them. The information given is based on our knowledge of the product, at the time of publication. It is given in good faith.

Besides, the attention of the user is drawn to the possible risk incurred by using the product for any other use than that for which it was intended.

In no way does this exempt the user from knowing and applying all the regulations controlling his activity. He alone will take on the responsibility for taking the precautions involved by the use of the product.

The aim of all the mandatory regulations mentioned is just to help the user to fulfil his obligations regarding the use of hazardous products.

This information must not be considered exhaustive. It does not exempt the user from ensuring that other obligations than those mentioned could apply, related to the storage and use of the product, this being his sole responsibility.

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