

**Material Safety Data Sheet**  
acc. to ISO/DIS 11014

Printing date 05/21/2002

Reviewed on 05/13/2002

**1 Identification of substance**

- **Product details**
- **Trade name:** **D-500F**
- **Manufacturer/Supplier:** EFTEC AG Hofstrasse 31 CH-8590 Romanshorn, Switzerland
- **Information department:** +41(0)71 466 43 00 Customer Support Laboratory
- **Emergency information:** +41(0)1 251 51 51 Swiss Toxicological Information Centre

**2 Composition/Data on components**

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

**Dangerous components:**

101-68-8	diphenylmethane-4,4'-di-isocyanate	£ 2.5%
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**3 Hazards identification**

- **Hazard description:**  
Harmful
- **Canadian Hazard Symbols**



- **Information pertaining to particular dangers for man and environment:**  
May cause sensitization by inhalation.  
Contains isocyanates. See information supplied by the manufacturer.

**Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



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Trade name: D-500F

(Contd. of page 1)

## 4 First aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.

## 5 Fire fighting measures

- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:**  
No special measures required.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Class according to regulation on flammable liquids:** Void

## 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:**

### 1333-86-4 Carbon black

PEL	3.5 mg/m <sup>3</sup>
REL	3.5* mg/m <sup>3</sup>
	*0.1 in presence of PAHs
TLV	3.5 mg/m <sup>3</sup>

(Contd. on page 3)

USA

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/21/2002

Reviewed on 05/13/2002

Trade name: D-500F

(Contd. of page 2)

**101-68-8 diphenylmethane-4,4'-di-isocyanate**

PEL Short-term value: C 0.2 mg/m<sup>3</sup>, C 0.02 ppm  
 REL Short-term value: C 0.2\* mg/m<sup>3</sup>, C 0.02\* ppm  
 Long-term value: 0.05 mg/m<sup>3</sup>, 0.005 ppm  
 \*10-min  
 TLV 0.051 mg/m<sup>3</sup>, 0.005 ppm

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:** Not required.

· **Eye protection:** Goggles recommended during refilling.

## 9 Physical and chemical properties

· **Form:** Pasty  
 · **Color:** Black  
 · **Odor:** Characteristic

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 208°C (406°F)

· **Flash point:** 164°C (327°F)

· **Ignition temperature:** 370°C (698°F)

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: 0.1 Vol %

Upper: 0.2 Vol %

· **Vapor pressure at 20°C (68°F):** 0 hPa

· **Density:** Not determined.

· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

· **Solvent content:**

Organic solvents: 0.0 %

## 10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

(Contd. on page 4)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/21/2002

Reviewed on 05/13/2002

Trade name: D-500F

(Contd. of page 3)

- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

## 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through inhalation.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful.

## 12 Ecological information

- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## 13 Disposal considerations

- **Product:**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border):**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

USA

(Contd. on page 5)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/21/2002

Reviewed on 05/13/2002

Trade name: D-500F

(Contd. of page 4)

## 15 Regulations

**· Sara**

**· Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

**· Section 313 (Specific toxic chemical listings):**

101-68-8 diphenylmethane-4,4'-di-isocyanate

**· TSCA (Toxic Substances Control Act):**

28553-12-0 di-"isononyl" phthalate

1333-86-4 Carbon black

101-68-8 diphenylmethane-4,4'-di-isocyanate

**· Proposition 65**

**· Chemicals known to cause cancer:**

None of the ingredients is listed.

**· Chemicals known to cause reproductive toxicity:**

None of the ingredients is listed.

**· Cancerogenity categories**

**· EPA (Environmental Protection Agency)**

101-68-8 diphenylmethane-4,4'-di-isocyanate CBD;D

**· IARC (International Agency for Research on Cancer)**

1333-86-4 Carbon black 2B

101-68-8 diphenylmethane-4,4'-di-isocyanate 3

**· NTP (National Toxicology Program)**

None of the ingredients is listed.

**· TLV (Threshold Limit Value established by ACGIH)**

1333-86-4 Carbon black A4

77-58-7 dibutyltin dilaurate A4

**· MAK (German Maximum Workplace Concentration)**

1333-86-4 Carbon black 3

101-68-8 diphenylmethane-4,4'-di-isocyanate 3

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

1333-86-4 Carbon black

**· OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**· Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

**· Hazard symbols:**



Harmful

(Contd. on page 6)

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 05/21/2002

Reviewed on 05/13/2002

Trade name: D-500F

(Contd. of page 5)

· **Hazard-determining components of labelling:**

*diphenylmethane-4,4'-di-isocyanate*

· **Risk phrases:**

*May cause sensitization by inhalation.*

· **Safety phrases:**

*Do not breathe gas/fumes/vapour/spray.*

*In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.*

*After contact with skin, wash immediately with plenty of soap and water*

*Wear suitable protective clothing.*

*In case of accident or if you feel unwell, seek medical advice immediately.*

*This material and its container must be disposed of as hazardous waste.*

· **Special labeling of certain preparations:**

*Contains isocyanates. See information supplied by the manufacturer.*

· **National regulations:**

*The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.*

· **Classification according to VbF: Void**

· **Technical instructions (air):**

Class	Share in %
I	£ 2,5
III	25-50

· **Water hazard class: Water hazard class I (Self-assessment): slightly hazardous for water.**

## 16 Other information

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

· **Department issuing MSDS: Customer Support Laboratory**

· **Contact: H. Perler**