

CH# 12392

SAFETY DATA SHEET according to EC directive 2001/58/EC



Cyrel FlexoSol

Version 2.4

Revision Date 15.09.2006

Ref. 130000013814

This SDS adheres to the standards and regulatory requirements of Great Britain and may not meet the regulatory requirements in other countries.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Product name : Cyrel FlexoSol

Use of the Substance/Preparation : Manufacture of printing plates

Company : Du Pont (UK) Limited
Wedgwood Way
Stevenage, Herts SG1 4QN
United Kingdom

Telephone : +44-1438-734 000

Emergency telephone number : +44-(0)8456-006 640

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	EC-No.	Classification	Concentration [%]
Decahydronaphthalene	91-17-8	202-046-9	Xn; R20 C; R34 N; R51/53	30 - 70
Benzyl alcohol	100-51-6	202-859-9	Xn; R20/22	1 - 20
Naphtha (petroleum) <0.1% Benzene	64742-48-9	265-150-3	Xn; R65	30 - 70
2-Ethylhexanol	104-76-7	203-234-3	Xi; R36/38	1 - 15

For the full text of the R phrases mentioned in this Section, see Section 16

3. HAZARDS IDENTIFICATION

Harmful by inhalation.
Irritating to skin
May cause long-term adverse effects in the aquatic environment
Harmful: may cause lung damage if swallowed

4. FIRST AID MEASURES

General advice : Take off all contaminated clothing immediately. Call a physician or Poison Control Centre immediately

Inhalation : Move to fresh air. Call a physician immediately.

**Cyrel FlexoSol**

Version 2.4

Revision Date 15.09.2006

Ref. 130000013814

- Skin contact : Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician
- Eye contact : Rinse immediately with plenty of water and seek medical advice.
- Ingestion : Do not induce vomiting: contains petroleum distillates and/or aromatic solvents. Immediately give plenty of water (if possible charcoal slurry). Call a physician immediately. Gently wipe or rinse the inside of the mouth with water.

Notes to physician

- Risks : Health injuries may be delayed
- Symptoms : Vomiting, Discomfort, Unconsciousness, Daze, Gastrointestinal discomfort, Convulsions, Headache

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Dry chemical, Carbon dioxide (CO₂), Water spray, Alcohol-resistant foam,
- Extinguishing media which must not be used for safety reasons : High volume water jet,
- Specific hazards during fire fighting : In the event of fire the following can be released: Carbon monoxide Carbon dioxide (CO₂)
- Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
- Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Keep containers and surroundings cool with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Use personal protective equipment. Wear respiratory protection. Keep people away from and upwind of spill/leak.
- Environmental precautions : Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.
- Methods for cleaning up : Soak up with oil absorbent material. Keep in suitable, closed containers for disposal. Flush with plenty of water.

7. HANDLING AND STORAGE**Handling**

- Advice on safe handling : Handle product only in closed system or provide appropriate exhaust ventilation at machinery. As a rule, at least 10 air changes per hour are recommended at the workplace. Take precautionary measures against static discharges. Avoid

**Cyrel FlexoSol**

Version 2.4

Revision Date 15.09.2006

Ref. 130000013814

formation of aerosol.

Advice on protection against fire and explosion : Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke

Storage

Requirements for storage areas and containers : Keep containers tightly closed in a cool, well-ventilated place Keep in an area equipped with solvent resistant flooring

Advice on common storage : Keep away from: Oxidizing agents Keep away from food and drink

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Personal protective equipment**

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Hand protection : Material: Nitrile rubber
Break through time: 480 min
Glove thickness: 0,4 mm

Eye protection : Safety glasses with side-shields

Skin and body protection : impervious clothing

Hygiene measures : When using do not eat, drink or smoke Do not breathe vapours or spray mist
Wash hands before breaks and at the end of workday Avoid contact with the skin and the eyes Keep away from food and drink

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid,
Colour : colourless,
Odour : characteristic
pH : not applicable
Melting point/range : < -20 °C
Boiling point/range : 180 - 215 °C
Flash point : 56 °C
Ignition temperature : 200 °C
Lower explosion limit : 1,0 %(V)

**Cyrel FlexoSol**

Version 2.4

Revision Date 15.09.2006

Ref. 130000013814

Upper explosion limit	: 6,1 %(V)
Vapour pressure	: 1,3 hPa at 20 °C
Relative density	: 0,85 at 20 °C
Water solubility	: at 20 °C , immiscible

10. STABILITY AND REACTIVITY

Materials to avoid	: Strong oxidizing agents
Hazardous decomposition products	: No decomposition if used as directed , Stable under normal conditions , Benzyl alcohol is slowly oxidized to benzaldehyde in the presence of air
Hazardous reactions	: Vapours may form explosive mixture with air.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	
• Decahydronaphthalene	: LD50/ rat : 4 170 mg/kg
• Benzyl alcohol	: LD50/ rat : 1 230 mg/kg
• Naphtha (petroleum)	: LD50/ rat : > 10 000 mg/kg
<0.1% Benzene	
Acute inhalation toxicity	
• Decahydronaphthalene	: LC50/ 4 h/ rat : 4 mg/l
• Benzyl alcohol	: ALC/ 4 h/ rat : ca 0,025 mg/l
• Naphtha (petroleum)	: LC50/ 4 h/ rat : > 2 000 mg/l
<0.1% Benzene	
Acute dermal toxicity	
• Decahydronaphthalene	: LD50/ rabbit : 5 900 mg/kg
• Benzyl alcohol	: LD50/ rabbit : 2 000 mg/kg
• Naphtha (petroleum)	: LD50/ rabbit : > 3 200 mg/kg
<0.1% Benzene	
Eye irritation	: Vapour during processing may be irritating to the respiratory tract and to the eyes

12. ECOLOGICAL INFORMATION

Toxicity to fish	
• Decahydronaphthalene	: LC50 / 48 h 4,3 mg/l
• Benzyl alcohol	: LC50 / 48 h/ Leuciscus idus (Golden orfe) : 646 mg/l

**Cyrel FlexoSol**

Version 2.4

Revision Date 15.09.2006

Ref. 130000013814

Toxicity to algae

• Decahydronaphthalene : / EC50/ 72 h/ Algae: 2,2 mg/l

Aquatic toxicity

• Decahydronaphthalene : / EC50/ 48 h/ Daphnia: 2,5 mg/l

• Benzyl alcohol : / EC50/ 48 h/ Daphnia: 360 mg/l

13. DISPOSAL CONSIDERATIONS

Product : After recovery of solvent dispose of residue as hazardous waste Contact the proper local authorities

Contaminated packaging : Can be used after re-conditioning.

14. TRANSPORT INFORMATION**ADR**Class: 3
Packaging group: III
Classification Code: F1
HI No.: 30
UN-No.: 1147
Labelling No.: 3
Proper shipping name: Decahydronaphthalene, solution**IATA_C**Class: 3
Packaging group: III
UN-No.: 1147
Labelling No.: 3
Proper shipping name: Decahydronaphthalene, solution**IMDG**Class: 3
Packaging group: III
UN-No.: 1147
Labelling No.: 3
Proper shipping name: Decahydronaphthalene, solution**15. REGULATORY INFORMATION****Labelling according to EC Directives**

Symbol(s) : Xn Harmful

Hazardous components: Decahydronaphthalene

**Cyrel FlexoSol**

Version 2.4

Revision Date 15.09.2006

Ref. 130000013814

R-phrase(s)	:	R20 R38 R53 R65	Harmful by inhalation Irritating to skin. May cause long-term adverse effects in the aquatic environment. Harmful: may cause lung damage if swallowed.
S-phrase(s)	:	S23 S24/25 S36/37/39 S61 S62	Do not breathe vapour. Avoid contact with skin and eyes Wear suitable protective clothing, gloves and eye/face protection Avoid release to the environment Refer to special instructions/Safety data sheets. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

16. OTHER INFORMATION**Text of R phrases mentioned in Section 2**

R20	Harmful by inhalation
R20/22	Harmful by inhalation and if swallowed.
R34	Causes burns
R36/38	Irritating to eyes and skin
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R65	Harmful: may cause lung damage if swallowed

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text