

# Safety Data Sheet

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

### Identification

Product name: Dequest® FS 0536

Reference Number 000000008962

Date 14.02.2006

Type of product Preparation

### Use of the substance or preparation

Cleaning Agent

### Company/Undertaking Identification

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## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### Composition

<u>Substance</u>	<u>CAS No.</u>	<u>EC No.</u>	<u>EC Classification</u>	<u>% w/w</u>
Diethylenetriamine penta(methylene phosphonic acid)	15827-60-8	239-931-4	Xi, R41	>=20,0 - <=26,0 %
<sup>1</sup> phosphonic acid compound			Xi, R36/38	>=20,0 - <=26,0 %
hydrogen chloride	7647-01-0	231-595-7	C, Xi, R34, R37	>=5,0 - <=10,0 %
phosphonic acid	13598-36-2	237-066-7	C, Xn, R22, R35	<4,0 %
water	7732-18-5	231-791-2		%

Phosphonate component expressed as active acid.

<sup>1</sup> The specific chemical identity and/or concentration is being withheld because it is trade secret information of Solutia Inc.

See Section 16 for full text of R-phrases

## 3. HAZARDS IDENTIFICATION

### Classification of the substance/preparation

EU Dangerous Preparations Directive 1999/45/EC.

Xi; R41

Xi; R38

Index Number (Annex I):

#### **Human health effects**

Risk of serious damage to eyes.  
Irritating to skin.

#### **Environmental effects**

On the basis of available information, this material is not expected to produce any significant adverse environmental effects when recommended use instructions are followed.

#### **Other effects**

Attacks many metals.

## **4. FIRST AID MEASURES**

#### **General**

Take off immediately all contaminated clothing.  
Grossly contaminated clothing:  
Wash before re-use.

#### **Eye contact**

Rinse immediately with plenty of water.  
Continue for at least 15 minutes.  
Obtain medical attention from an eye specialist.

#### **Skin contact**

Wash immediately with plenty of water.  
Continue for at least 15 minutes.  
Obtain medical advice.  
Remove contaminated clothing.

#### **Inhalation**

Remove patient to fresh air.  
Obtain medical advice.

#### **Ingestion**

Give water to drink.  
Obtain medical attention immediately.

## **5. FIRE FIGHTING MEASURES**

#### **Extinguishing media**

Water spray, foam, dry chemical, or carbon dioxide

#### **Exposure hazards**

Decomposes in a fire giving off irritant fumes.

Combustion products:

carbon monoxide (CO), carbon dioxide, nitrogen oxides (NO<sub>x</sub>), phosphorus oxides (P<sub>x</sub>O<sub>y</sub>), phosphines

### **Protective equipment**

Firefighters, and others exposed, wear self-contained breathing apparatus.

Equipment should be thoroughly decontaminated after use.

## **6. ACCIDENTAL RELEASE MEASURES**

### **Personal precautions**

Use personal protection recommended in section 8.

### **Environmental precautions**

Keep out of drains and water courses.

### **Methods for cleaning up**

Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal.

Absorb remaining material or small spills with an inert material and then place in a chemical waste container.

Neutralize washings with soda ash or lime.

Flush spill area with water.

## **7. HANDLING AND STORAGE**

### **Handling**

Do not get in eyes, on skin, or on clothing.

Avoid breathing vapour or mist.

Do not taste or swallow.

Keep container closed.

Use with adequate ventilation.

Wash thoroughly after handling.

### **Engineering measures**

Provide local exhaust ventilation.

### **Storage**

Keep in a cool, dry, well ventilated place.

Stable under normal conditions of handling and storage.

Temperature > -18 C

Use these materials for equipment glass lining, PVC, polypropylene, glass reinforced plastic, polyethylene

Unsuitable materials of construction Do not use the following materials for equipment, mild steel, carbon steel, aluminum, other metals

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational exposure limit

hydrogen chloride

ACGIH TLV: 2 ml/m<sup>3</sup> ; ; ceiling  
EU : ILV: 5 ml/m<sup>3</sup> ; 8 mg/m<sup>3</sup> ; ; 8-hr TWA  
EU : ILV: 10 ml/m<sup>3</sup> ; 15 mg/m<sup>3</sup> ; ; 15-min STEL  
Austria : MAK (Maximum concentration in workplace): 5 ml/m<sup>3</sup> ; 8 mg/m<sup>3</sup> ; ; 8-hr TWA  
Belgium: KORTETIJD SWAARDE / VALEUR COURTE DURÉE (15 min): 10 ml/m<sup>3</sup> ; 15 mg/m<sup>3</sup> ; ;  
Belgium: GRENSWAARDE / VALEUR LIMITE (8h): 5 ml/m<sup>3</sup> ; 8 mg/m<sup>3</sup> ; ;  
Cyprus - Occupational Exposure Limits: 10 ml/m<sup>3</sup> ; 15 mg/m<sup>3</sup> ; ; 15-min STEL  
Cyprus - Occupational Exposure Limits: 5 ml/m<sup>3</sup> ; 8 mg/m<sup>3</sup> ; ; 8-hr TWA  
Czech Republic - Occupational Exposure Limits: 15 mg/m<sup>3</sup> ; ; ceiling  
Czech Republic - Occupational Exposure Limits: 8 mg/m<sup>3</sup> ; ; 8-hr TWA  
Denmark : Grænseværdier for Stoffer og Materialer (TWA) :: 5 ml/m<sup>3</sup> ; 7 mg/m<sup>3</sup> ; ; ceiling  
Estonia - Occupational Exposure Limits: 10 ml/m<sup>3</sup> ; 15 mg/m<sup>3</sup> ; ; 15-min STEL  
Estonia - Occupational Exposure Limits: 5 ml/m<sup>3</sup> ; 8 mg/m<sup>3</sup> ; ; 8-hr TWA  
Finland : Työministeriö, Kemian Työsuojeluneuvottelukunta (15-minute) :: 5 ml/m<sup>3</sup> ; 7,6 mg/m<sup>3</sup> ; ;  
France : VLE (Exposure limit value): 5 ml/m<sup>3</sup> ; 7,5 mg/m<sup>3</sup> ; ;  
Germany : MAK (Maximum concentration in workplace): 2 ml/m<sup>3</sup> ; 3 mg/m<sup>3</sup> ; ;  
Greece : Occupational Exposure Limits: 5 ml/m<sup>3</sup> ; 7 mg/m<sup>3</sup> ; ; 15-min STEL  
Greece : Occupational Exposure Limits: 5 ml/m<sup>3</sup> ; 7 mg/m<sup>3</sup> ; ; 8-hr TWA  
Hungary - Occupational Exposure Limits: 16 mg/m<sup>3</sup> ; ; 15-min STEL  
Hungary - Occupational Exposure Limits: 8 mg/m<sup>3</sup> ; ; 8-hr TWA  
Ireland : OEL (Occupational Exposure Limit): 10 ml/m<sup>3</sup> ; 14 mg/m<sup>3</sup> ; ; 15-min STEL  
Ireland : OEL (Occupational Exposure Limit): 5 ml/m<sup>3</sup> ; 7 mg/m<sup>3</sup> ; ; 8-hr TWA  
Italy : Occupational Exposure Limits (OEL) :: 10 ml/m<sup>3</sup> ; 15 mg/m<sup>3</sup> ; ; 15-min STEL  
Italy : Occupational Exposure Limits (OEL) :: 5 ml/m<sup>3</sup> ; 8 mg/m<sup>3</sup> ; ; 8-hr TWA  
Latvia - Occupational Exposure Limits - TWAs (AERs): 10 ml/m<sup>3</sup> ; 15 mg/m<sup>3</sup> ; ; 15-min STEL  
Latvia - Occupational Exposure Limits - TWAs (AERs): 5 ml/m<sup>3</sup> ; 8 mg/m<sup>3</sup> ; ; 8-hr TWA  
Malta - Occupational Exposure Limits: 5 ml/m<sup>3</sup> ; 8 mg/m<sup>3</sup> ; ; 8-hr TWA  
Norway : Administrative Norms for Contaminants in the Workplace (TLV) :: 5 ml/m<sup>3</sup> ; 7 mg/m<sup>3</sup> ; ; ceiling  
Netherlands : MAC (Maximum concentration on workplace): 5 ml/m<sup>3</sup> ; 8 mg/m<sup>3</sup> ; ;  
Poland : Occupational Exposure Limits: 10 mg/m<sup>3</sup> ; ; 15-min STEL  
Poland : Occupational Exposure Limits: 5 mg/m<sup>3</sup> ; ; 8-hr TWA  
Portugal : Occupational Exposure Limits (OEL): 5 ml/m<sup>3</sup> ; ; ceiling  
Slovak Republic - Occupational Exposure Limits: 15 mg/m<sup>3</sup> ; ; ceiling  
Slovak Republic - Occupational Exposure Limits: 5 ml/m<sup>3</sup> ; 8 mg/m<sup>3</sup> ; ; 8-hr TWA  
Slovenia - Occupational Exposure Limits: 10 ml/m<sup>3</sup> ; 16 mg/m<sup>3</sup> ; ; 15-min STEL  
Slovenia - Occupational Exposure Limits: 5 ml/m<sup>3</sup> ; 8 mg/m<sup>3</sup> ; ; 8-hr TWA  
Spain : Occupational Exposure Limits (VLA-EC) :: 10 ml/m<sup>3</sup> ; 15 mg/m<sup>3</sup> ; ;  
Spain : Occupational Exposure Limits (VLA-ED) :: 5 ml/m<sup>3</sup> ; 7,6 mg/m<sup>3</sup> ; ;  
Sweden : Arbetskyddsstyrelsen Hygieniska Gränsvärden (NGV) :: 5 ml/m<sup>3</sup> ; 8 mg/m<sup>3</sup> ; ; 15-min STEL  
UK : OES (Occupational Exposure Standard): 5 ml/m<sup>3</sup> ; 8 mg/m<sup>3</sup> ; ; 15-min STEL  
UK : OES (Occupational Exposure Standard): 1 ml/m<sup>3</sup> ; 2 mg/m<sup>3</sup> ; ; 8-hr TWA

### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

#### Hand protection

Wear impermeable gloves. Suitable materials : PVC, nitrile (rubber).

#### Eye protection

Wear chemical goggles.

#### Skin protection

Wear suitable protective clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### General information

<b>Form:</b>	liquid
<b>Colour:</b>	amber
<b>Odour:</b>	Not determined

#### Important health, safety and environmental information

<b>pH:</b>	0,8 @ 10 g/l @ 25 C	
<b>Boiling point :</b>	110 C	
<b>Flash point:</b>		Non flammable aqueous solution
<b>Specific gravity:</b>	1,37	
<b>Water solubility:</b>	completely miscible	

#### Other information

## 10. STABILITY AND REACTIVITY

#### Conditions to avoid

None known

#### Materials to avoid

Corrosive to aluminum and mild steel.  
Contact with strong oxidizing agents.

#### Hazardous reactions

Hazardous polymerization does not occur.

#### Hazardous decomposition products

Decomposition products: carbon monoxide (CO), carbon dioxide, nitrogen oxides (NO<sub>x</sub>), phosphorus oxides (P<sub>x</sub>O<sub>y</sub>), phosphines

## 11. TOXICOLOGICAL INFORMATION

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This product has not been tested for toxicity, but data obtained on similar products are summarized below:

#### Acute animal toxicity data

<b>Oral</b>	LD50 ,rat, > 2.000 mg/kg ,
<b>Dermal</b>	LD50 , rat, > 2.000 mg/kg ,
<b>Eye irritation</b>	rabbit, Irritating to eyes. 24 h
<b>Skin irritation</b>	rabbit, Irritating to skin.

## 12. ECOLOGICAL INFORMATION

This product has not been tested for environmental toxicity, but data obtained on similar products are summarized below:

#### Environmental Toxicity

Invertebrates	48 h EC50 Water flea (Daphnia magna) > 100 mg/l
Fish	96 h LC50 Rainbow trout (Oncorhynchus mykiss) > 100 mg/l 96 h LC50 Bluegill sunfish (Lepomis macrochirus) > 100 mg/l
Algae	96 h EC50 Algae (Selenastrum capricornutum) > 10 mg/l

#### Environmental fate

Biodegradation	60 d Biodegrades slowly in the environment.
Bioconcentration factor (BCF)	not expected to bioaccumulate.

## 13. DISPOSAL CONSIDERATIONS

#### Disposal considerations

##### Incineration

All local and national regulations should be followed.

Small quantities : Adjust pH between 6 and 9 and flush away with plenty of water.

Large quantities :

Send to special chemical waste disposal facility.

## 14. TRANSPORT INFORMATION

#### ROAD/RAIL

<b>Proper shipping name</b>	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. <i>phosphonic acid, hydrogen chloride</i>		
<b>ADR/RID Class</b>	8		
<b>Packing Group</b>	III		
<b>Hazchemcode</b>	2X	<b>Kemler</b>	80

## SEA

UN Class	8	UN No.	3265
Packing Group	III		

## AIR

ICAO/IATA Class	8
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## 15. REGULATORY INFORMATION

### EC label

EU Dangerous Preparations Directive 1999/45/EC.

Xi - Irritant

R41 - Risk of serious damage to eyes.

R38 - Irritating to skin.

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 - After contact with skin, wash immediately with plenty of water.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

### Contains:

### Other regulation

Germany - WGK (Wassergefährdungsklasse) : 1

## 16. OTHER INFORMATION

Prepared by the Solutia Hazard Communication Group.

Data sheets prepared or revised since August 2002 have been completed in accordance with the European Communities Directive 2001/58.

Reason for revision: New Product

### R-phrases

R41 - Risk of serious damage to eyes.

R36/38 - Irritating to eyes and skin.

R34 - Causes burns.

R37 - Irritating to respiratory system.

R22 - Harmful if swallowed.

R35 - Causes severe burns.

Number format: "," used as decimal separator.

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