

# Safety Data Sheet

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

### Identification

Product name: DEQUEST® 2066A

Type of product Preparation

### Use of the substance or preparation

Complexing agents

### 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 (methylenephosphonic) acid, sodium salt	22042-96-2	244-751-4		>=45,0 - <=49,0 %
sodium chloride	7647-14-5	231-598-3		<=8,0 %
formaldehyde	50-00-0	200-001-8	T, R23/24/25, R34, R40, R43	<50,0 PPM
water	7732-18-5	231-791-2		%

Phosphonate component expressed as active acid.

See Section 16 for full text of R-phrases

## 3. HAZARDS IDENTIFICATION

### Classification of the substance/preparation

EU Dangerous Preparations Directive 1999/45/EC.

Not classified as dangerous

Index Number (Annex I):

**Human health effects**

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

**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.

**4. FIRST AID MEASURES****General**

Grossly contaminated clothing:  
Wash before re-use.

**Eye contact**

Rinse immediately with plenty of water.  
Continue for at least 15 minutes.  
Obtain medical advice if there are persistent symptoms.

**Skin contact**

Wash immediately with plenty of water.  
Obtain medical advice if there are persistent symptoms.

**Inhalation**

Remove patient to fresh air.

**Ingestion**

Give water to drink.  
Obtain medical advice.

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

**Protective equipment**

Firefighters, and others exposed, wear self-contained breathing apparatus.  
Equipment should be thoroughly decontaminated after use.

**6. ACCIDENTAL RELEASE MEASURES**

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**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**

Avoid prolonged or repeated contact with skin.  
Wash hands thoroughly after handling or contact.

**Engineering measures**

Provide natural or mechanical ventilation to minimize exposure.  
If practical, use local mechanical exhaust ventilation at sources of air contamination such as processing equipment.

**Storage**

Keep in a cool, dry, well ventilated place.  
Stable under normal conditions of handling and storage.

Temperature	> -10 C
Use these materials for equipment	glass lining, PVC, polypropylene, glass reinforced plastic, polyethylene
Unsuitable materials of construction	mild steel, carbon steel, aluminum, other metals

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational exposure limit**

No specific occupational exposure limit has been established.

**Respiratory protection**

This material is not likely to present an airborne exposure concern under normal conditions of use.  
Avoid breathing vapour or mist.  
Use approved respiratory protection equipment (full facepiece recommended) when airborne exposure is excessive.  
If used, full facepiece replaces the need for face shield and/or chemical goggles.  
Consult the respirator manufacturer to determine the appropriate type of equipment for a given application.  
Observe respirator use limitations specified by the manufacturer.

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**Hand protection**

Wearing protective gloves is recommended. Suitable materials : Nitrile (rubber) PVC

**Eye protection**

Wear chemical goggles.  
Have eye flushing equipment available.

**Skin protection**

Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice.  
Wash contaminated skin thoroughly after handling.

**9. PHYSICAL AND CHEMICAL PROPERTIES****General information**

**Form:** liquid  
**Colour:** amber  
**Odour:** odourless

**Important health, safety and environmental information**

**pH:** 2 - 3 @ 10 g/l @ 25 C

**Flash point:**

Non flammable aqueous solution

**Specific gravity:** 1,41 - 1,43

**Water solubility:** completely miscible

**Partition coefficient n-octanol/water (log Pow) :** 3,5 @ 20 C

**Other information**

**Freezing point :** -20 C

**10. STABILITY AND REACTIVITY****Conditions to avoid**

None known

**Materials to avoid**

Corrosive to aluminum and mild steel.  
Contact with strong oxidizing agents.  
Contact with reducing agents.  
Attacks many metals.

**Hazardous reactions**

Hazardous polymerization does not occur.

**Hazardous decomposition products**

Decomposition products: carbon dioxide, carbon monoxide (CO), nitrogen oxides (NOx), phosphorus oxides (PxOy), phosphines

## 11. TOXICOLOGICAL INFORMATION

This product has been tested for toxicity. The assessment below is based on data obtained on this product and on a related product of similar composition.

### Acute animal toxicity data

<b>Oral</b>	LD50 ,rat, > 5.000 mg/kg , Data obtained on similar product.
<b>Dermal</b>	LD50 , rabbit, > 5.000 mg/kg , Data obtained on similar product.
<b>Eye irritation</b>	rabbit, Slightly irritating to eyes but not sufficient for classification. 24 h
<b>Skin irritation</b>	rabbit, Not irritating to skin. 4 h
<b>Developmental toxicity</b>	rat, gavage, Minor variations and/or reduced fetal weight, but no birth defects were observed in rat pups following treatment during pregnancy., Effects only observed at very high dose levels. Data obtained on similar product.
<b>Reproductive toxicity</b>	rat, diet, 1 generation Signs of generalized toxicity (reduced body weight and/or reduced weight gain) were observed in parental animals and offspring with no effect on fertility or reproduction. Data obtained on similar product.
<b>Mutagenicity</b>	The active ingredient generally produced no genetic changes in standard tests using animal, bacterial or yeast cells.

## 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) 242 mg/l
Fish	96 h LC50 Rainbow trout (Oncorhynchus mykiss) > 180 mg/l
Algae	96 h EC50 Algae (Selenastrum capricornutum) 2 mg/l Algal growth inhibition is due to ability of this product to complex materials not to toxicity per se.

### Environmental fate

Biodegradation	Modified SCAS Primary degradation 2,2 % River Die-Away theoretical CO2 evolution 9,55 % 60 d
Bioconcentration factor (BCF)	not expected to bioaccumulate.

## 13. DISPOSAL CONSIDERATIONS

All local and national regulations should be followed.  
Burn only in proper incinerator.  
Send to special chemical waste disposal facility.  
Small quantities : Adjust pH between 6 and 9 and flush away with plenty of water.

## 14. TRANSPORT INFORMATION

### ROAD/RAIL

**Proper shipping name** UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.  
*diethylenetriamine penta (methylenephosphonic) acid, sodium salt*

**ADR/RID Class** 8  
**Packing Group** III

**Hazchemcode** 2X **Kemler** 80

### SEA

**UN Class** 8 **UN No.** 3265

**Packing Group** III

**Emergency Schedule, EmS No.** F-A, S-B

### AIR

**ICAO/IATA Class** 8

## 15. REGULATORY INFORMATION

### EC label

EU Dangerous Preparations Directive 1999/45/EC.

None.

### Contains:

diethylenetriamine penta (methylenephosphonic) acid, sodium salt

### Other regulation

Germany - WGK (Wassergefährdungsklasse) : 1

## 16. OTHER INFORMATION

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

### R-phrases

R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.  
R34 - Causes burns.

R40 - Limited evidence of a carcinogenic effect.

R43 - May cause sensitization by skin contact.

Number format: "," used as decimal separator.

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