

# Synthetic Metal Chelates

Synthetic chelating agents and metal complexes play an important role in various fields of industry, water treatment and agriculture. Chelating agents are organic compounds and exhibit the ability to sequester metal ions and keep the ions mobile and active under different chemical conditions. This chemical property is called the chelate effect. Chelates are characterized by strong binding affinity to metal ions, offer a good water solubility and are stable over a wide pH and temperature range. Plants are, for example, able to utilize chelated metals directly. Thus, a much smaller and accurate dosage is possible.



We offer the following liquid products:

- Ferric-Ammonium-EDTA, 7.5 % Fe**
- Ferric-Ammonium-Citrate, 8.0 % Fe**
- Zinc-diammonium-EDTA, 9.0 % Zn**
- Copper-diammonium-EDTA, 9.0 % Cu**
- Manganese-dipotassium-EDTA, 6.0 % Mn**
- Ferric-diammonium-DTPA, 6.0 % Fe**



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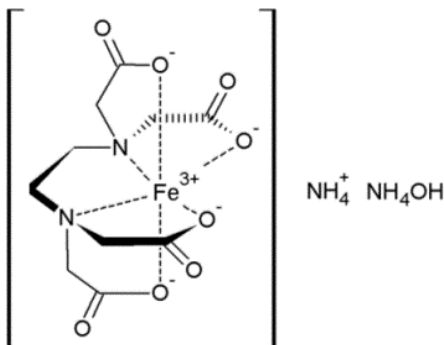
# Ferric-Ammonium-EDTA, 7.5% Fe

Chemical name: ethylenediaminetetraacetic acid, ferric ammonium complex  
Art.-No.: 122530/122533  
CAS-No.: 68413-60-5

## TECHNICAL DATA SHEET

### Chemical formula:

$C_{10}H_{21}N_4O_9Fe$



### Molecular weight:

397,2 g/mol

### Main characteristics:

stable metal-complex with oxidizing properties

### Appearance:

red-brown liquid, clear

### Density (20°C):

1,295 ±0,005 g/ml

### Miscibility with water:

in any ratio

### Freezing point:

< -10 °C

### pH (10% solution in water, 20°C):

8,0 ±0,5

### Fe(II)-content:

max. 0,15%

### Fe(III)-content:

7,48 ±0,08% (97 ±1 g/L)

### Application:

Bleaching agent in photographic industry or provision of chelated iron in liquid fertilizers, and such.

### Storage:

From laboratory results we can endorse the quality of the product for a period of up to one year if stored in original, unopened properly stored container. Beyond one year, we recommend to confirm the quality of the material by retesting the parameters of analysis.

Storage is recommended in original container or in PVC-, PE- or stainless-steel-container. Avoid contact of the product with following metals: aluminum, copper, nickel and corresponding alloys.

This data sheet is based on our current knowledge. In view of many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislations are observed.

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