

MATERIAL SAFETY DATA SHEET

DATE PRINTED: 11/13/1997

PAGE 1  
MSDS NO. 16-048563

DISSOLVINE D-FE-11

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

*Iron Chelate*

PRODUCT NAME  
DISSOLVINE D-FE-11

CHEMICAL NAME  
Diethylenetriaminopentaacetic acid, ferric sodium complex

SYNONYM  
Ferric sodium DTPA

CHEMICAL FORMULA  
C14 H19 N3 O10 FeNa

CAS #  
12389-75-2

CHEMICAL FAMILY  
Aminocarboxylic acid salt

MANUFACTURERS NAME  
Akzo Nobel Chemicals Inc.

PRODUCT/TECHNICAL INFORMATION  
1-800-666-1200

ADDRESS  
5 Livingstone Avenue  
Dobbs Ferry, NY 10522

MEDICAL/HANDLING EMERGENCY  
1-914-693-6946

COUNTRY  
USA

TRANSPORTATION EMERGENCY  
CHEMTREC 1-800-424-9300

PRODUCT USE  
Sequestering agent

REVISION DATE  
4/21/1995

ISSUE DATE  
9/27/1994

REVISION NO.  
003

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE DESCRIPTION

PERCENT

CAS#

Ferric sodium DTPA  
Trisodium NTA

98.000-100.000 12389-75-2  
0.050- 0.150 5064-31-3

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SECTION 3. HAZARDS IDENTIFICATION  
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**Appearance & Odor**

Odorless, yellow-green colored powder.

**STATEMENT OF HAZARDS**

ATTENTION! CONTAINS MATERIAL WHICH MAY CAUSE KIDNEY DAMAGE BASED ON ANIMAL DATA.

POSSIBLE CANCER HAZARD-CONTAINS MATERIAL WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA.

Risk of cancer depends on duration and level of exposure.

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE PRACTICES.

AVOID UNNECESSARY EXPOSURE.

REMOVE MATERIAL FROM EYES, SKIN AND CLOTHING.

USE WITH ADEQUATE VENTILATION.

WASH THOROUGHLY AFTER HANDLING.

**Fire & Explosion Hazards**

Not considered a fire hazard. When involved in a fire, does not contribute any unusual hazards.

**Primary Route of Exposure**

Skin and eye contact are the primary routes of exposure to this product.

**Inhalation Acute Exposure**

Inhalation of dust may cause mild irritation.

**Skin Contact - ACUTE**

Skin contact is not expected to cause irritation.

**Eye contact - ACUTE**

Eye contact with dusts may cause mild physical irritation.

**Ingestion - ACUTE**

This product has a low order of toxicity and is considered to be practically harmless by ingestion.

**CARCINOGENICITY**

IARC	....YES	OSHA	....NO
NTP	....YES	ACGIH	....NO

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SECTION 4. FIRST AID MEASURES  
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**Inhalation First Aid**

Remove to fresh air. If breathing becomes difficult, oxygen may be given, preferably with a physician's advice. If not breathing, give artificial respiration. Get medical attention.

**Skin Contact - First Aid**

Remove contaminated clothing and equipment. Wash all affected areas with plenty of soap and water for at least 15 minutes. Do not attempt to neutralize with chemical agents. Wash any contaminated clothing and shoes before reuse. Obtain medical advice if irritation occurs.

**Eye Contact - First Aid**

Flush eyes with large quantities of running water for a minimum of 15 minutes. If the victim is wearing contact lenses, remove them. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eye and lids with water. DO NOT let victim rub eye(s). Do not attempt to neutralize with chemical agents. Oils or ointments should not be used at this time. Get medical attention if eye irritation occurs.

**Ingestion - First Aid**

Give several glasses of water. If vomiting occurs, keep head below hips to reduce risk of aspiration. Give fluids again. Seek medical attention if health effects occur.

**Medical conditions aggravated**

There are no data available that address medical conditions that are generally recognized as being aggravated by exposure to this product.

**Note to Physician**

No specific antidote is known. Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical conditions.

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SECTION 5. FIRE FIGHTING MEASURES

**FLASH POINT**

N/D F N/D C

Not relevant

**FLASH METHOD**

Not applicable

**AUTO IGNITION TEMPERATURE**

N/D F N/D C

Not applicable

**UPPER EXPLOSION LIMIT**

N/D

**LOWER EXPLOSION LIMIT**

N/D

**Extinguishing Media**

This product is noncombustible. If involved in a fire, extinguishing agents suitable for surrounding materials should be used.

**Fire Fighting Procedures**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Evacuate non-essential personnel from the fire area. Firefighters should wear full-face, self-contained breathing apparatus and impervious protective clothing.

**Fire & Explosion Hazards**

Not considered a fire hazard. When involved in a fire, does not contribute any unusual hazards.

**Other Fire + Explosion Hazards**

No other explosion hazards of this product are known.

**Hazardous Products/Combustion**

Oxides of carbon and nitrogen are produced by the combustion of this product.

**NFPA HEALTH RATING**

1\*

**NFPA FLAMMABILITY RATING**

0

**NFPA REACTIVITY RATING**

0

**NFPA OTHER**

NA

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SECTION 6. ACCIDENTAL RELEASE MEASURES  
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**Cleanup**

Stop source of spill. Sweep up spilled solid material, being careful not to create dust. Return sweepings to stock or, if contaminated, place into a chemical waste container for disposal.

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SECTION 7. HANDLING AND STORAGE  
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**Handling**

Avoid prolonged and/or repeated skin contact and eye contact when handling this product.

**Storage**

Keep container closed and dry.  
Suitable for any general chemical storage area.  
Isolate from strong oxidizing agents.  
Store in PVC, PE, stainless steel or bituminized tanks.  
Avoid contact with aluminum, copper, copper alloys and nickel.

**MAXIMUM STORAGE TEMPERATURE**

N/D F            N/D C

**General Comments**

Containers should not be opened until ready for use.

-----  
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION  
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**Respiratory protection**

If handling operations lead to dusting, wear a NIOSH-approved half-mask, air purifying respirator with dust, mist and fume filters

When using respirator cartridges or canisters, they must be changed frequently (following each use or at the end of the workshift) to assure breakthrough exposure does not occur.

**Skin Protection**

Skin contact with this product should be minimized through the use of suitable protective clothing and gloves selected with regard for use condition exposure potential.

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION  
(CONTINUED)  
-----**Eye Protection**

Indirect vented, dust-tight goggles are recommended if dust is generated when handling this product.

**Ventilation protection**

Special ventilation is usually not required under normal use conditions. General plant ventilation should be adequate in most cases.

**Other Protection**

All food and smoking materials should be kept in a separate area away from the storage/use location. Eating, drinking and smoking should be prohibited in areas where there is a potential for significant exposure to this material. Before eating, drinking or smoking, hands and face should be thoroughly washed.

**APPLICABLE EXPOSURE LIMITS**

In addition to any exposure limits displayed below, exposures to this product should be controlled below limits established for "Particulates Not Otherwise Classified (PNOC):"  
10 mg/m<sup>3</sup> - ACGIH  
15 mg/m<sup>3</sup> (total dust); 5 mg/m<sup>3</sup> (respirable fraction) - OSHA

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EXPOSURE LIMITS/REGULATORY INFORMATION  
(IN MG/M<sup>3</sup>)

SUBSTANCE DESCRIPTION	REG. AGENCY	PEL	TLV	TWA	STEL	CEIL
Ferric sodium DTPA	OSHA	N/D	N/D	N/D	N/D	N/D
	ACGIH	N/D	N/D	N/D	N/D	N/D
	NIOSH	N/D	N/D	N/D	N/D	N/D
	SUPPLIER	N/D	N/D	N/D	N/D	N/D
Trisodium NTA	OSHA	N/D	N/D	N/D	N/D	N/D
	ACGIH	N/D	N/D	N/D	N/D	N/D
	NIOSH	N/D	N/D	N/D	N/D	N/D
	SUPPLIER	N/D	N/D	N/D	N/D	N/D

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION  
(CONTINUED)  
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## LEGEND:

## EXPOSURE LIMIT DESCRIPTIONS

CEIL Ceiling Exposure Limit  
 PEL Permissible Exposure Limit  
 STEL Short Term Exposure Limit  
 TLV Threshold Limit Value  
 TWA Time Weighted Average  
 N/D = Not Determined

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES  
-----VAPOR PRESSURE (mm Hg)  
N/DVAPOR DENSITY (Air = 1.0)  
N/DEVAPORATION RATE  
N/DVOLATILE %  
N/DBOILING POINT  
N/D F N/D CODOR THRESHOLD (ppm)  
N/DSPECIFIC GRAVITY  
N/DBULK DENSITY  
AP 750 kg/m<sup>3</sup>SOLUBILITY IN WATER  
11 % by weight

SOLUBILITY IN OTHER SOLVENTS

COEFFICIENT OF OIL/WATER  
N/DPOUR POINT  
N/D F N/D CMELTING POINT  
302.00 F 150.00 C  
(decomposes without melting)pH FACTOR  
AP 3 ( 1% solution)CLOUD POINT  
N/D F N/D CFLASH POINT  
N/D F N/D C  
Not relevant

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES  
(CONTINUED)  
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**FLASH METHOD**  
Not applicable

**UPPER EXPLOSION LIMIT**  
N/D

**LOWER EXPLOSION LIMIT**  
N/D

**AUTO IGNITION TEMPERATURE**  
N/D F N/D C  
Not applicable

**Other**  
Decomp. temp. = >150 deg C

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SECTION 10. STABILITY AND REACTIVITY  
-----

**Stability**

This product is stable at ambient temperatures and atmospheric pressures. It is not self-reactive and is not sensitive to physical impact.

**Incompatibilities**

Aqueous solution in contact with aluminum evolves hydrogen. Avoid contact with aluminum, copper, copper alloys and nickel. This product is incompatible with strong oxidizers.

**Polymerization**

Hazardous polymerization is not expected to occur.

**Decomposition**

Decomposition products are carbon dioxide, carbon monoxide, nitrogen oxides and water vapor.

**Conditions to Avoid**

Contact with strong oxidizers and prolonged storage at elevated temperatures should be avoided.

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SECTION 11. TOXICOLOGICAL INFORMATION  
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**Toxicological - Inhalation**

Inhalation toxicity data are not available for this product.

**Inhalation Chronic Exposure**

Chronic inhalation exposure effects for this product are not known.

**Toxicological - Dermal**

Dermal toxicity data is not available for this product. However, it is not considered to be irritating based on tests with chemically similar products.

**Skin Contact - CHRONIC**

Chronic dermal exposure effects for this product are not known.

**Toxicological - Eye**

While this product has not been tested, it is expected that it would be minimally irritating to eyes based on tests with similar products.

**Toxicological - Ingestion**

Ingestion toxicity data is not available for this product. However, the oral LD50 can be expected to be > 2000 mg/kg (rat), based on data from structurally related products.

**Ingestion - CHRONIC**

Chronic ingestion of NTA has been shown to cause kidney toxicity.

**CARCINOGENICITY/MUTAGENICITY**

Nitrilotriacetic acid (NTA) and its salts were determined to be "possibly carcinogenic to humans" (Group 2B), by the International Agency for Research on Cancer (IARC) and a compound which "may reasonably be anticipated to be a carcinogen" by the National Toxicology Program (NTP).

**REPRODUCTIVE EFFECTS**

The reproductive toxicity of this product is not known.

**NEUROTOXICITY**

The neurotoxic effects of this product are not known.

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SECTION 11. TOXICOLOGICAL INFORMATION  
(CONTINUED)  
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**Other Toxicological Effects**

No other toxic effects for this product are known.

**Target Organs**

The kidney and bladder appear to be target organs.

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SECTION 12. ECOLOGICAL INFORMATION  
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**ECOTOXICOLOGICAL INFORMATION**

The ecological toxicity of this product is not known.

**DISTRIBUTION**

C.O.D.: approx. 750 mg/g

**CHEMICAL FATE**

This product is not readily biodegradable.

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SECTION 13. DISPOSAL CONSIDERATIONS  
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**Waste Disposal**

In its unused condition, this product is not considered to be a RCRA defined hazardous waste by characteristics or listings. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristic or listing. Dispose in accordance with all local, state and federal regulations.

**CONTAINER DISPOSAL**

Containers should be cleaned of residual product before disposal. Empty containers should be disposed of in accordance with all applicable laws and regulations.

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SECTION 14. TRANSPORT INFORMATION  
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**SHIPPING DESCRIPTION**

Not regulated as hazardous by DOT, see exception for material corrosive to aluminum 49CFR 173.154 (d).  
For air, water and international shipments this product is regulated as: Corrosive solid, n.o.s. (aminocarboxylic acid),  
CLASS 8, UN1759, PACKING GROUP III  
DOT EMERGENCY GUIDE NO.60  
TDG EMERGENCY GUIDE NO.39  
(corrosive to aluminum)

**REQUIRED LABELS**

None required for domestic land shipment.  
For air, water and international shipment, corrosive labels are required.

**ENVIRON. HAZARDOUS SUBSTANCE**

This product does not contain an environmentally hazardous substance per 49 CFR 172.101, Appendix B.

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SECTION 15. REGULATORY INFORMATION  
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Component Ferric sodium DTPA is subject to the following

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Environmental List

DSL	Domestic Substance List-Canada
TSCA	Toxic Subst. Cont. Act -listed

Component Trisodium NTA is subject to the following

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Environmental List

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SECTION 15. REGULATORY INFORMATION  
(CONTINUED)

DSL Domestic Substance List-Canada  
IARC IARC Carcinogens-Grps. 1,2A,2B  
MA. LIST Massachusetts Substance List  
TSCA Toxic Subst. Cont. Act -listed

OTHER REGULATORY INFORMATION

No other regulatory information is available on this product.

WHMIS HAZARD CLASS

D-2A, E

HAZARD RATING SOURCE

HMIS

HEALTH

1\*

REACTIVITY

0

FLAMMABILITY

0

OTHER

SECTION 16. OTHER INFORMATION

OTHER INFORMATION

DISSOLVINE is a registered trademark of Akzo Nobel Chemicals Inc.

CREATED BY

Product Safety 914 674-5000

KEY TO ABBREVIATIONS:

EQ=Equal

AP=Approximately

LT=Less Than

TR=Trace

GT=Greater Than

ND=No Data available

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