

SAFETY DATA SHEET

according to the Globally Harmonized System and Canadian regulation

Dissolvine E-Fe-13

Version 2

Revision Date 12/04/2017

Print Date 07/26/2018

CA / EN

1. IDENTIFICATION

Product name : Dissolvine E-Fe-13

Product Use Description : Industry category: Agriculture, forestry, fishery
Specific use(s): Chelating agent
Plant nutrient

Company : Akzo Nobel Functional Chemicals LLC
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2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	powder
Colour	yellow, brown
Odour	odourless
Hazard Summary	Risk of dust explosion.

GHS Classification

Combustible dust, Category 1

GHS label elements

Signal word : Warning

Hazard statements : May form combustible dust concentrations in air.

Carcinogenicity:

IARC : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA : No component of this product present at levels greater than or

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equal to 0.1% is on OSHA's list of regulated carcinogens.
: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name	:	Ethylenediaminetetraacetic acid, ferric sodium complex, trihydrate
Pure substance/mixture	:	Substance
No hazardous ingredients	:	

4. FIRST AID MEASURES

General advice	:	No hazards which require special first aid measures.
Inhalation	:	Remove to fresh air. Keep patient warm and at rest. Rinse nose and mouth with water.
Skin contact	:	Remove contaminated clothing and shoes. Rinse with water.
Eye contact	:	Rinse with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing.
Ingestion	:	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person.

Notes to physician

Symptoms	:	The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.
Treatment	:	Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Specific hazards during firefighting / Specific hazards arising from the chemical	:	Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.
Combustion products	:	Fire will produce smoke containing hazardous combustion products (see section 10).
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.
Further information	:	Standard procedure for chemical fires.

See also Section 9. Physical and chemical properties: Safety data

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Personal precautions : Avoid dust formation.
- Emergency measures on accidental release : Follow safe handling advice and personal protective equipment recommendations.
- Environmental precautions : No special environmental precautions required.
- Methods for cleaning up /
Methods for containment : Sweep up and shovel.
Keep in suitable, closed containers for disposal.
- Reference to other sections : For disposal considerations see section 13.
For personal protection see section 8.

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : For personal protection see section 8.
Avoid creating dust.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
No special handling advice required.
- Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.
No sparking tools should be used.

Storage

- Requirements for storage areas and containers : Keep in a dry place.
Store at room temperature in the original container.
Keep container tightly closed.
- Advice on common storage : No special restrictions on storage with other products.
- Other data : No decomposition if stored and applied as directed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Contains no substances with occupational exposure limit values.

Appropriate engineering controls

Provide appropriate exhaust ventilation at places where dust is formed.

Personal protective equipment

- Eye/face protection : Safety glasses

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Hand protection	: Glove material: Nitrile rubber
Respiratory protection	: No personal respiratory protective equipment normally required. In the case of dust, vapour or aerosol formation use a respirator with an approved filter. Half mask with a particle filter P2 (EN 143)
Hygiene measures	: General industrial hygiene practice.

Environmental exposure controls

General advice : No special environmental precautions required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	: powder
Colour	: yellow brown
Odour	: odourless
Odour Threshold	: Not applicable

Safety data

pH	: 4 - 5.5 1% (water)
Melting point	: Decomposes before melting.
Boiling point/boiling range	: Not applicable
Flash point	: Not applicable
Ignition temperature	: ≥ 200 °C Method: Auto-ignition of a 5mm dust layer according to EN 50281-2-1
Evaporation rate	: Not applicable
Flammability (solid, gas)	: Not classified as a flammability hazard
Flammability (liquids)	: Not applicable
Lower explosion limit	: ≥ 40 g/m ³
Upper explosion limit	: Not applicable
Vapour pressure	: Not applicable
Relative vapour density	: Not applicable
Relative density	: No data available
Bulk density	: 900 - 1,000 kg/m ³

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Water solubility	: ca. 90 g/l
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: < 0
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: Not classified as oxidising.

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

10. STABILITY AND REACTIVITY

Conditions to avoid	: None known.
Materials to avoid	: None known.
Hazardous decomposition products	: Carbon oxides nitrogen oxides (NOx)
Thermal decomposition	: No data available
Reactivity	: Stable under normal conditions.
Chemical stability	: Stable under recommended storage conditions.
Hazardous reactions	: Dust may form explosive mixture in air.

11. TOXICOLOGICAL INFORMATION

PRODUCT INFORMATION:

Hazard Summary

Acute toxicity	: Not classified based on available information.
Skin corrosion/irritation	: Not classified based on available information.
Serious eye damage/eye irritation	: Not classified based on available information.
Respiratory or skin sensitisation	: Respiratory sensitisation: Not classified based on available information. Skin sensitisation: Not classified based on available information.
Germ cell mutagenicity	: Not classified based on available information.

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Carcinogenicity	:	Not classified based on available information.
Reproductive toxicity	:	Not classified based on available information.
STOT - single exposure	:	Not classified based on available information.
STOT - repeated exposure	:	Not classified based on available information.
Aspiration hazard	:	Not classified based on available information.

Potential Health Effects

Inhalation	:	Product dust may be irritating to the respiratory system.
Skin	:	Product dust may be irritating to skin.
Eyes	:	Product dust may be irritating to eyes.
Ingestion	:	Not expected to be irritating.
Aggravated Medical Condition	:	None known.
Symptoms of Overexposure	:	The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.

Toxicology Assessment

Further information : No further data available.

Test result

Acute oral toxicity : LD50: > 2,000 mg/kg
Species: Rat
Method: OECD Test Guideline 423
The substance or mixture has no acute oral toxicity

Carcinogenicity:

IARC : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA : No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

ACGIH : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

12. ECOLOGICAL INFORMATION

PRODUCT INFORMATION:

Ecotoxicology Assessment

Additional ecological information : None known.

Test result

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Ecotoxicity effects

Toxicity to fish : LC50: > 100 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)
Test Type: static test
Method: OECD Test Guideline 203

Elimination information (persistence and degradability)

Bioaccumulation : Not expected considering the low log Pow value.
Mobility : Adsorption to the solid soil particles is not expected.
Biodegradability : Result: Not readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Contaminated packaging : Empty remaining contents.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

International Regulations

ADR

Not regulated as a dangerous good

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Further information for transport

Not classified as dangerous in the meaning of transport regulations.

National Regulations

49 CFR

Not regulated as a dangerous good

TDG

Not regulated as a dangerous good

NOM-002-SCT

Not regulated as a dangerous good

15. REGULATORY INFORMATION

Notification status

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DSL	: YES. All components of this product are on the Canadian DSL
AICS	: YES. On the inventory, or in compliance with the inventory
NZIoC	: YES. On the inventory, or in compliance with the inventory
ENCS	: YES. On the inventory, or in compliance with the inventory
ISHL	: YES. On the inventory, or in compliance with the inventory
KECI	: YES. On the inventory, or in compliance with the inventory
PICCS	: YES. On the inventory, or in compliance with the inventory
IECSC	: YES. On the inventory, or in compliance with the inventory
TCSI	: YES. On the inventory, or in compliance with the inventory
TSCA	: YES. All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.

For explanation of abbreviation see section 16.

Canadian lists

Canadian Environmental Protection Act - National Pollutant Release Inventory

Canadian National Pollutant Release Inventory (NPRI): No component is listed on NPRI.

Canada. CEPA 1999 Significant New Activity (SNAc) List

No substances are subject to a Significant New Activity Notification.

16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations;

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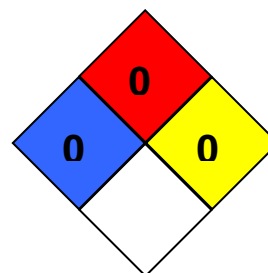
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UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Further information

HMIS Classification : Health hazard: 1
Chronic Health Hazard: /
Flammability: 0
Physical hazards: 0

NFPA Classification : Health hazard: 0
Fire Hazard: 0
Reactivity Hazard: 0



Notification status explanation

REACH	1907/2006 (EU)
DSL	Canadian Domestic Substances List (DSL)
AICS	Australia Inventory of Chemical Substances (AICS)
NZIoC	New Zealand. Inventory of Chemical Substances
ENCS	Japan. ENCS - Existing and New Chemical Substances Inventory
ISHL	Japan. ISHL - Inventory of Chemical Substances
KECI	Korea. Korean Existing Chemicals Inventory (KECI)
PICCS	Philippines Inventory of Chemicals and Chemical Substances (PICCS)
IECSC	China. Inventory of Existing Chemical Substances in China (IECSC)
TCSI	Taiwan Chemical Substance Inventory (TCSI)
TSCA	United States TSCA Inventory

Further information

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The information in this material safety data sheet should be provided all who will use, handle, store, transport or otherwise be exposed to this product. The user must determine the appropriate measures that need to be implemented for the use and handling of this product in the context of the user's operations and use of this product. The information contained herein supersedes all previously issued bulletins on the subject matter covered. If the date on this document is more than three years old, call to make certain that this sheet is current. No warranty is made as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. User must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes, including mixing with other products. Nothing contained herein shall be construed as granting or extending any license under any patent.

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.