

SAFETY DATA SHEET

according to the Globally Harmonized System and Canadian regulation

Dissolvine E-Cu-15

Version 2

Revision Date 11/21/2017

Print Date 07/26/2018

CA / EN

1. IDENTIFICATION

Product name : Dissolvine E-Cu-15

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

Specific use(s): Chelating agent

Company : Akzo Nobel
 Functional Chemicals B.V.
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2. HAZARDS IDENTIFICATION


Emergency Overview

Appearance	granular
Colour	blue
Odour	odourless
Hazard Summary	Risk of dust explosion.

GHS Classification

Combustible dust, Category 1
 Acute toxicity, Category 4, Oral
 Eye irritation, Category 2A

GHS label elements

Hazard pictograms : 

Signal word : Warning

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- Hazard statements : May form combustible dust concentrations in air.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
- Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear eye protection/ face protection.
Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

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.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name : Ethylenediaminetetraacetic acid, copper disodium complex
Pure substance/mixture : Substance

Hazardous components

Chemical name	CAS-No.	Classification	Concentration [% W/W]
Ethylenediaminetetraacetic acid, copper disodium complex	14025-15-1	Acute Tox. 4; H302 Eye Irrit. 2A; H319	>= 90 - <= 100

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.

Inhalation : Remove to fresh air.
Keep patient warm and at rest.
Rinse nose and mouth with water.

Skin contact : Take off contaminated clothing and shoes immediately.

Eye contact : Rinse with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
Obtain medical attention.

Ingestion : Clean mouth with water and drink afterwards plenty of water.
Never give anything by mouth to an unconscious person.
Obtain medical attention.

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.

Risks : Harmful if swallowed.
Causes serious eye irritation.

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.

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- 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 : Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.
Ensure adequate ventilation.
- Emergency measures on accidental release : Evacuate personnel to safe areas.
Only qualified personnel equipped with suitable protective equipment may intervene.
Prevent unauthorised persons entering the zone.
- Environmental precautions : Try to prevent the material from entering drains or water courses.
- Methods for cleaning up / Methods for containment : Pick up and arrange disposal without creating dust.
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 formation of respirable particles.
Avoid contact with skin, eyes and clothing.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Smoking, eating and drinking should be prohibited in the application area.
- Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.

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.

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Keep container tightly closed.

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.

Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection : Tightly fitting safety goggles

Hand protection : Glove material: For prolonged or repeated contact use protective gloves.

: Glove material: Protective gloves complying with EN 374.

Skin and body protection : Protective suit

Respiratory protection : Half mask with a particle filter P2 (EN 143)

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

Environmental exposure controls

General advice : Try to prevent the material from entering drains or water courses.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : granular

Colour : blue

Odour : odourless

Odour Threshold : Not applicable

Safety data

pH : 6 - 7 1% (water)

Melting point : Decomposes before melting.

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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)	: The product is not flammable.
Flammability (liquids)	: Not applicable
Lower explosion limit	: ≥ 40 g/m ³
Upper explosion limit	: No data available
Vapour pressure	: Not applicable
Relative vapour density	: Not applicable
Relative density	: Not applicable
Bulk density	: 600 - 800 kg/m ³
Water solubility	: 680 g/l at 0 °C
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: < 0
Auto-ignition temperature	: No data available
Decomposition temperature	: 263 °C
Viscosity, kinematic	: No data available
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 (NO _x)
Thermal decomposition	: 263 °C
Reactivity	: Stable under normal conditions.

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- 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 : Harmful if swallowed.
- Skin corrosion/irritation : Not classified based on available information.
- Serious eye damage/eye irritation : Causes serious eye irritation.
- 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.
- 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 : Thermal decomposition can lead to release of irritating gases and vapours.
Product dust may be irritating to the respiratory system.
- Skin : Product dust may be irritating to skin.
May cause skin irritation.
- Eyes : Causes serious eye irritation.
- Ingestion : Harmful if swallowed.
May cause irritation of the mucous membranes.
- 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.

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Test result

Acute oral toxicity : Acute toxicity estimate: 956.99 mg/kg
Method: Calculation method

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.

TOXICOLOGY DATA FOR THE COMPONENTS:

Test result

Component: Ethylenediaminetetraacetic acid, copper disodium complex

Acute oral toxicity : LD50: 890 mg/kg
Species: Rat

Acute inhalation toxicity : LC50 (Rat): 5.30 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 436

Skin irritation : Species: Rabbit
Result: slight irritation
Method: OECD Test Guideline 404
Based on available data, the classification criteria are not met.

Eye irritation : Species: Rabbit
Result: Irritating to eyes.
Classification: Irritating to eyes.
Method: OECD Test Guideline 405

Sensitisation : Species: Mouse
Result: Does not cause skin sensitisation.
Method: OECD Test Guideline 429

Germ cell mutagenicity
Genotoxicity in vitro

: Ames test
Result: negative
Method: OECD Test Guideline 471

Micronucleus test
Result: Does not induce structural chromosome aberrations.
Method: OECD Test Guideline 487

In vitro gene mutation study in mammalian cells
Result: Ambiguous results
Method: OECD Test Guideline 476
Read-across from supporting substance (structural analogue or surrogate).

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Carcinogenicity	: Species: Rat Application Route: Oral Result: Not carcinogenic on laboratory animals. Read-across from supporting substance (structural analogue or surrogate).
Reproductive toxicity/Fertility	: Species: Rat Fertility: No observed adverse effect level: 500 mg/kg bw/day Method: OECD Test Guideline 422
Reproductive toxicity/Development/Teratogenicity	: Species: Rat Teratogenicity: No observed adverse effect level: 500 mg/kg bw/day Method: OECD Test Guideline 422

12. ECOLOGICAL INFORMATION

PRODUCT INFORMATION:

Ecotoxicology Assessment

Additional ecological information : None known.

Test result

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 : Not readily biodegradable, but will degrade after a longer period.

Further information on ecology

Biochemical Oxygen Demand (BOD) : No data available

COMPONENTS:

Test result

Component: Ethylenediaminetetraacetic acid, copper disodium complex

Ecotoxicity effects

Toxicity to fish : LC50: 555 mg/l
Exposure time: 96 h
Species: Lepomis macrochirus (Bluegill sunfish)
Test Type: Fresh water

Toxicity to daphnia and other aquatic invertebrates : EC50: 109.2 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)
Test Type: Fresh water

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	Method: OECD Test Guideline 202 Read-across (Analogy)
Toxicity to algae	: EC50: 662.6 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (green algae) Test Type: Fresh water Method: OECD Test Guideline 201 Read-across (Analogy)
Toxicity to bacteria	: NOEC: > 654 mg/l Exposure time: 3 h Species: activated sludge Test Type: static test Method: OECD Test Guideline 209 Read-across (Analogy)
Toxicity to fish (Chronic toxicity)	: NOEC: 37.2 mg/l Exposure time: 35 d Species: Danio rerio (zebra fish) Test Type: flow-through test Method: OECD Test Guideline 210 Read-across (Analogy)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 29.5 mg/l Exposure time: 21 d reproduction rate Species: Daphnia magna (Water flea) Test Type: semi-static test Method: OECD Test Guideline 211 Read-across (Analogy)

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	: Not readily biodegradable, but will degrade after a longer period.

Further information on ecology

Biochemical Oxygen Demand (BOD)	: No data available
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13. DISPOSAL CONSIDERATIONS

Product	: Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Hazardous waste Dispose of contents/container in accordance with local regulation.
Contaminated packaging	: Empty remaining contents.

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Dispose of as unused product.

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

DSL : YES. All components of this product are on the Canadian DSL
AICS : YES. On the inventory, or in compliance with the inventory
NZIoC : NO. Not 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

Ethylenediaminetetraacetic acid, copper disodium complex 14025-15-1

Canada. CEPA 1999 Significant New Activity (SNAc) List

No substances are subject to a Significant New Activity Notification.

16. OTHER INFORMATION

Full text of H-Statements

H302 : Harmful if swallowed.
H319 : Causes serious eye irritation.

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; 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: 2
Chronic Health Hazard: /
Flammability: 0
Physical hazards: 0

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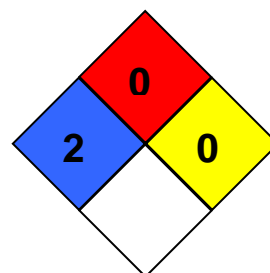
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NFPA Classification

: Health hazard: 2
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.