

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Dissolvine E-Ca-10

Version	Revision Date:	US / Z8	Date of last issue: 07/18/2023
2.7	10/29/2024		Date of first issue: 04/24/2015

SECTION 1. IDENTIFICATION

Product name : Dissolvine E-Ca-10

Manufacturer or supplier's details

Company name of supplier : Nouryon Functional Chemicals LLC
100 Matsonford Road, Building 1, Suite 500
Radnor PA 19087
US

Telephone : (800) 906-7979
Telefax : (312) 544-7167
E-mail address : sds_chelates@nouryon.com
Emergency telephone : 24 hours:+31 57 06 79211, CHEMTREC-USA:1-800-424-9300, CHEMTREC outside USA +1-703-527-3887, CANUTEC-CANADA:1-613-996-6666, 化学事故应急咨询电话 : 国家化学事故应急响应中心 +86 532 8388 9090.-:
CHEMTREC (24-hr): (800) 424-9300 (Toll-free in the U.S., Canada and the U.S. Virgin Islands)
CHEMTREC (24-hr): (703) 527-3887 (For calls originating elsewhere / collect calls are accepted)

Recommended use of the chemical and restrictions on use

Recommended use : Chelating agent
Fertilizers

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust

GHS label elements

Signal Word : Warning

Hazard Statements : If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

Other hazards

Dust can form an explosive mixture in air.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance
Substance name : Ethylenediaminetetraacetic acid, calcium disodium complex

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Dissolvine E-Ca-10

Version 2.7	Revision Date: 10/29/2024	US / Z8	Date of last issue: 07/18/2023 Date of first issue: 04/24/2015
----------------	------------------------------	---------	---

CAS-No.	: 62-33-9
Synonyms	: Ethylenediaminetetraacetic acid, calcium disodium complex

Components

No hazardous ingredients

SECTION 4. FIRST AID MEASURES

General advice	: No hazards which require special first aid measures.
If inhaled	: Remove to fresh air. Keep patient warm and at rest. Rinse nose and mouth with water.
In case of skin contact	: Remove contaminated clothing and shoes. Rinse with water.
In case of eye contact	: Rinse with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing.
If swallowed	: Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	: The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known.
Notes to physician	: Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Dissolvine E-Ca-10

Version 2.7	Revision Date: 10/29/2024	US / Z8	Date of last issue: 07/18/2023 Date of first issue: 04/24/2015
----------------	------------------------------	---------	---

Personal precautions, protective equipment and emergency procedures	:	Avoid dust formation. Evacuate personnel to safe areas. Only qualified personnel equipped with suitable protective equipment may intervene. Prevent unauthorized persons entering the zone.
Environmental precautions	:	No special environmental precautions required.
Methods and materials for containment and cleaning up	:	Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Provide appropriate exhaust ventilation at places where dust is formed. No sparking tools should be used.
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.
Conditions for safe storage	:	Keep in a dry place. Store at room temperature in the original container. Keep container tightly closed.
Materials to avoid	:	No special restrictions on storage with other products.
Further information on storage stability	:	No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures	:	Provide appropriate exhaust ventilation at places where dust is formed.
-----------------------------	---	---

Personal protective equipment

Respiratory protection	:	No personal respiratory protective equipment normally required. In the case of dust, vapor or aerosol formation use respirator with an approved filter. Half mask with a particle filter P2 (EN 143) General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are
------------------------	---	---

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Dissolvine E-Ca-10

Version 2.7	Revision Date: 10/29/2024	US / Z8	Date of last issue: 07/18/2023 Date of first issue: 04/24/2015
----------------	------------------------------	---------	---

unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection Material	:	Nitrile rubber
Eye protection	:	Safety glasses
Hygiene measures	:	General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	granular
Color	:	white
Odor	:	odorless
Odor Threshold	:	Not applicable
pH	:	6.5 - 7.5 Concentration: 1 % In water
Melting point	:	Decomposes before melting.
Boiling point/boiling range	:	Not applicable
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Not classified as a flammability hazard May form combustible dust concentrations in air during processing, handling or other means.
Flammability (liquids)	:	Not applicable
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower	:	>= 40 g/m3

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Dissolvine E-Ca-10

Version	Revision Date:	US / Z8	Date of last issue: 07/18/2023
2.7	10/29/2024		Date of first issue: 04/24/2015

flammability limit	
Vapor pressure	: Not applicable
Relative vapor density	: Not applicable
Relative density	: No data available
Bulk density	: 650 - 850 kg/m ³
Solubility(ies)	
Water solubility	: ca. 800 g/l
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: < 0
Autoignition temperature	: 716 °F / 380 °C Method: Auto-ignition of a 5mm dust layer according to EN 50281-2-1
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable
Explosive properties	: Not explosive
Oxidizing properties	: Not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable under normal conditions.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: May form combustible dust concentrations in air. May form explosive dust-air mixture under confinement. If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.
Conditions to avoid	: None known.
Incompatible materials	: None known.
Hazardous decomposition products	: No decomposition if stored and applied as directed.
Hazardous decomposition	: Carbon oxides

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Dissolvine E-Ca-10

Version	Revision Date:	US / Z8	Date of last issue: 07/18/2023
2.7	10/29/2024		Date of first issue: 04/24/2015

products nitrogen oxides (NO_x)

Thermal decomposition : No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Remarks: Information taken from reference works and the literature.

Acute inhalation toxicity : LC50 (Rat): > 1.13 mg/l
Exposure time: 7 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Based on available data, the classification criteria are not met.

Acute dermal toxicity	: LD50: > 2,000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute dermal toxicity Remarks: Information given is based on data obtained from similar substances.
-----------------------	--

Skin corrosion/irritation

Product:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	No skin irritation
Remarks	:	Read-across (Analogy)

Serious eye damage/eye irritation

Product:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	OECD Test Guideline 405
Remarks	:	Read-across (Analogy)

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Dissolvine E-Ca-10

Version	Revision Date:	US / Z8	Date of last issue: 07/18/2023
2.7	10/29/2024		Date of first issue: 04/24/2015

Respiratory or skin sensitization

Product:

Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	Does not cause skin sensitization.
Remarks	:	Read-across (Analogy)

Germ cell mutagenicity

Product:

Genotoxicity in vitro	:	Test Type: reverse mutation assay Test system: Salmonella typhimurium Method: OECD Test Guideline 471 Result: negative
Genotoxicity in vivo	:	Test Type: Micronucleus test Species: Mouse Method: OECD Test Guideline 474 Result: negative Remarks: Read-across (Analogy)
Germ cell mutagenicity - Assessment	:	Weight of evidence does not support classification as a germ cell mutagen.

Carcinogenicity

Product:

Species	:	Rat
Application Route	:	Oral
NOAEC	:	> 250 mg/kg bw/day
Result	:	negative
Remarks	:	Information taken from reference works and the literature.

Carcinogenicity - Assessment	:	Not classifiable as a human carcinogen.
------------------------------	---	---

IARC No ingredient 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.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Product:

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Dissolvine E-Ca-10

Version	Revision Date:	US / Z8	Date of last issue: 07/18/2023
2.7	10/29/2024		Date of first issue: 04/24/2015

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity
No effects on or via lactation

STOT-single exposure

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.
Remarks : Information given is based on data obtained from similar substances.

STOT-repeated exposure

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity

Product:

No aspiration toxicity classification

Further information

Product:

Remarks : No further data available.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: Read-across (Analogy)

Toxicity to algae/aquatic plants : EC50 (algae): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Read-across (Analogy)

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Dissolvine E-Ca-10

Version	Revision Date:	US / Z8	Date of last issue: 07/18/2023
2.7	10/29/2024		Date of first issue: 04/24/2015

Toxicity to fish (Chronic toxicity)	:	NOEC (Danio rerio (zebra fish)): > 25.7 mg/l Exposure time: 35 d Test Type: flow-through test Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 25 mg/l End point: reproduction rate Exposure time: 21 d Method: OECD Test Guideline 211 Remarks: Information given is based on data obtained from similar substances.

Persistence and degradability

Product:

Biodegradability	:	Remarks: Not readily biodegradable, but will degrade after a longer period.
Biochemical Oxygen Demand (BOD)	:	Remarks: No data available

Bioaccumulative potential

Product:

Bioaccumulation	:	Remarks: Not expected considering the low log Pow value.
-----------------	---	--

Mobility in soil

Product:

Mobility	:	Remarks: Adsorption to the solid soil particles is not expected.
----------	---	--

Other adverse effects

Product:

Ozone-Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological information	:	None known.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Dissolvine E-Ca-10

Version	Revision Date:	US / Z8	Date of last issue: 07/18/2023
2.7	10/29/2024		Date of first issue: 04/24/2015

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

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

SECTION 14. TRANSPORT INFORMATION

International Regulations

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.

Domestic regulation

49 CFR

Not regulated as a dangerous good

Reportable Quantity : This product does not contain an environmentally hazardous substance per 49 CFR 172.101, Appendix A.

Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Combustible dust

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Dissolvine E-Ca-10

Version	Revision Date:	US / Z8	Date of last issue: 07/18/2023
2.7	10/29/2024		Date of first issue: 04/24/2015

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals subject to disclosure and listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

TCSI	: On the inventory, or in compliance with the inventory
TSCA	: All substances listed as active on the TSCA inventory
AIIC	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
NZloC	: On the inventory, or in compliance with the inventory
TECI	: On the inventory, or in compliance with the inventory

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Dissolvine E-Ca-10

Version
2.7

Revision Date:
10/29/2024

US / Z8

Date of last issue: 07/18/2023

Date of first issue: 04/24/2015

TSCA list

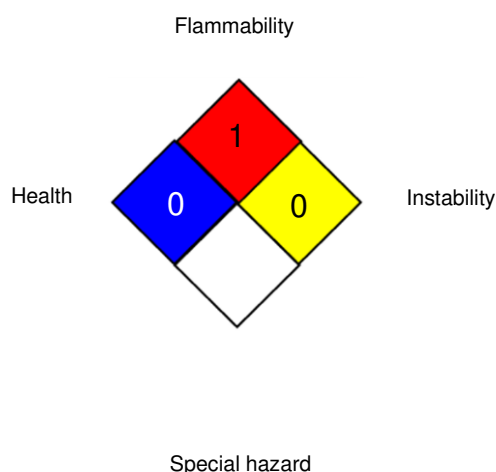
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:

HEALTH	/	0
FLAMMABILITY		2
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

Dissolvine E-Ca-10

Version	Revision Date:	US / Z8	Date of last issue: 07/18/2023
2.7	10/29/2024		Date of first issue: 04/24/2015

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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECL - Thailand Existing Chemicals Inventory; 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

Revision Date : 10/29/2024

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

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.

US / Z8