Section 1. Identification

Product Identity Ethylene Diamine
Other means of identification EDA; 1,2-Diaminoethane; 1,2-Ethannnediamine

Relevant identified uses of the substance or mixture and uses advised against

Industrial and laboratory applications

Details of the supplier of the safety data sheet

Company Name

Silver Fern Chemical, Inc.
121 W. De La Guerra Street, Suite B
Santa Barbara, CA 93101 USA
info@silverfernchemical.com
Website - www.silverfernchemical.com

24-hour Emergency Telephone No.

Emergency telephone number:
Infotrac: 1-800-535-5053
Outside USA & Canada +1-352-323-3500

Customer Service: Customer Service: 1-866-282-3384

Section 2. Hazard(s) identification

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Flammable Liquid, category 3; H226	Flammable liquid and vapor.
Acute toxicity(oral), category 4; H302	Harmful if swallowed.
Acute toxicity(dermal), category 3; H311	Toxic in contact with skin.
Acute toxicity(inhalation), category 4; H332	Harmful if inhaled.
Skin corrosion/irritation category 1B; H314	Causes severe skin burns and eye damage.
Serious eye damage / eye irritation, category 1; H318	Causes serious eye damage.
Skin sensitizer category 1; H317	May cause an allergic skin reaction.
Respiratory sensitization, category 1; H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Label elements



Danger

H226 Flammable liquid and vapor.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

[Prevention]
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking.
P233 Keep container tightly closed.
P235 Keep cool.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical, ventilating, light, equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P260 Do not breathe dust, fume, mist, vapors or spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves, protective clothing, eye protection, face protection.
P284 In case of inadequate ventilation, wear respiratory protection.
[Response]
P301+312 IF SWALLOWED: Call a POISON CENTER, doctor or physician if you feel unwell.
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P303+361+353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER, doctor or physician.
P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P333+313 If skin irritation or a rash occurs: Get medical advice or attention.
P342+311 If experiencing respiratory symptoms: Call a POISON CENTER, doctor or physician.
P361+364 Take off immediately all contaminated clothing and wash it before reuse.
P362+364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.
P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

[Storage]
P403+235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
[Disposal]
P501 Dispose of contents or container in accordance with local and national regulations.

Other hazards

This product contains no PBT/vPvB/vPvM chemicals.
This product contains no endocrine disrupting chemicals.

Does NOT contain component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS) per the US EPA PFASMASTER combined list of PFAS chemicals.

Section 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Ethanediamine CAS Number: 107-15-3 Synonyms: EDA; 1,2-Diaminoethane; 1,2-Ethannnediamine	100	Flammable Liquid, category 3; H226 Acute toxicity(dermal), category 4; H312 Acute toxicity(oral), category 4; H302 Skin corrosion/irritation category 1B; H314 Respiratory sensitization, category 1; H334 Skin sensitizer category 1;H317	No data available

The actual concentration or concentration range is withheld as a trade secret.
*PBT/vPvB - PBT, vPvM or vPvB-substance.
The full texts of the phrases are shown in Section 16.

Section 4. First aid measures

Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Eyes Rinse with plenty of clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Overview No specific symptom data available.
No chronic toxicity or long-term toxicity information available. Treat symptomatically. See section 2 for further details.

Inhalation Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Eyes Causes serious eye damage.

Skin Toxic in contact with skin. May cause an allergic skin reaction. Causes severe skin burns and eye damage.

Ingestion Harmful if swallowed.

Section 5. Fire-fighting measures

Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO_2, powder, water spray.
Unsuitable extinguishing media: Do not use; water jet.

Special hazards arising from the substance or mixture

Hazardous decomposition: When heated, emits highly toxic and corrosive fumes of

hydrogen compounds and hydrogen gas.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No Smoking.
Keep container tightly closed.
Keep cool.
Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating, light, equipment.
Use non-sparking tools.
Take action to prevent static discharges.
Do not breathe dust, fumes, mist, vapors or spray.

Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full-face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

ERG Guide No. 132

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Environmental precautions

Do not allow spills to enter drains or waterways.

Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.
Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the

Waste Regulations.
Contain, dilute cautiously with water, and neutralize with soda ash or lime.

Section 7. Handling and storage

Precautions for safe handling

Handle containers carefully to prevent damage and spillage.
Repeated or prolonged skin contact may cause skin irritation.
and/or dermatitis and sensitization of susceptible persons. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges. Open drum carefully as content may be under pressure. To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage, including any incompatibilities

Incompatible materials: Metal, glass, stoneware, alkali and strong concentrated acids.
Prevent unauthorized access. No smoking. Keep in a well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Keep in properly labeled containers.

Specific end use(s)

No available information

Section 8. Exposure controls / personal protection

Control parameters

Exposure Limits

CAS No.	Ingredient	Source	Value
107-15-3	Ethanediamine	OSHA	10 ppm, 25 mg/m^3
		ACGIH	TWA: 10 ppm

CAS No.	Ingredient	Source	Value
		NIOSH	TWA 10 ppm (25 mg/m^3)

Exposure controls

Respiratory Use NIOSH/MSHA approved respirator, following manufacturer's recommendations when concentrations exceed permissible exposure limits.

Eyes Wear safety glasses with side shields to protect the eyes. An eye wash station is suggested as a good workplace practice.

Skin Chemical resistant clothing such as coveralls/apron and boots should be worn. Chemical impervious gloves required.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties

Information on basic physical and chemical properties

Physical State	Liquid
Color	Clear or light yellow
Odor	Ammoniacal
Odor threshold	No available information
Melting point / freezing point	Melting point/range: 8,5 °C
Initial boiling point and boiling range	243 °F / 117 °C
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: 2.6 %(V) Upper Explosive Limit: 14.2 %(V)

Flash Point	109.99 °F / 43.33 °C Method: Pensky-Martens closed cup
Auto-ignition temperature	725 - 761 °F / 385 - 405 °C
Decomposition temperature	> 230 °F / > 110 °C
pH	12.2 at 100 g/l at 20 °C
Dynamic viscosity	Viscosity, dynamic: 1.265 - 1.725 mPa.s (77 °F / 25 °C)
Solubility in Water	Miscible
Partition coefficient n-octanol/water (Log Kow)	log Pow: -1.6
Vapor pressure (Pa)	12.45022 hPa (68 °F / 20 °C)
Relative Density	0.896 g/cm3 (68 °F / 20 °C)
Vapor Density	2.07 - (Air = 1.0)
Evaporation rate (Ether = 1)	No available information
Oxidising properties	No available information
Explosive properties	No available information
Molecular Weight	60.12 g/mol

Other information
No other relevant information.

Section 10. Stability and reactivity

Reactivity
Hazardous Polymerization will not occur.
Chemical stability
Stable under normal circumstances.
Possibility of hazardous reactions
No available information
Conditions to avoid
Excessive heat and open flame.
Incompatible materials
Metal, glass, stoneware, alkali and strong concentrated acids.
Hazardous decomposition products
When heated, emits highly toxic and corrosive fumes of hydrogen compounds and

hydrogen gas.

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Ethanediamine - (107-15-3)	866.00, Rat - Category: 4	560.00, Rabbit - Category: 3	14.70, Rat - Category: 4	No data available.	No data available.

Carcinogen Data

CAS No.	Ingredient	Source	Value
107-15-3	Ethanediamine	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	No
		ACGIH	A4

Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)	3	Toxic in contact with skin.
Acute toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	1B	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	1	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable

STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Possible routes of entry:
Inhalation, ingestion, skin contact, and skin absorption.
Symptoms and effects, both acute and delayed:
No specific symptom data available.
No chronic toxicity or long-term toxicity information available. Treat symptomatically.

Inhalation Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Eyes Causes serious eye damage.
Skin Toxic in contact with skin. May cause an allergic skin reaction. Causes severe skin burns and eye damage.
Ingestion Harmful if swallowed.

Section 12. Ecological information

Toxicity
No additional information provided for this product. See Section 3 for chemical specific data.
Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
Ethanediamine - (107-15-3)	640.00, Poecilla reticulata	16.70, Daphnia magna	645.00, Pseudokirchneriella subcapitata

Persistence and degradability
There is no data available on the preparation itself.
Bioaccumulative potential
No available information
Mobility in soil
No available information
Results of PBT and vPvB assessment
This product contains no PBT/vPvB/vPvM chemicals.

Other adverse effects
No available information

Section 13. Disposal considerations

Waste treatment methods
Observe all federal, provincial and local regulations when disposing of this substance.

Section 14. Transport information





	US DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
UN number	UN1604	UN1604	UN1604
UN proper shipping name	Ethylenediamine	Ethylenediamine	Ethylenediamine
Transport hazard class(es)	Class: 8 Sub Class: 3	Class: 8 Sub Class: 3	Class: 8 Sub Class: 3
Packing group	II	II	II

Environmental hazards

IMDG Marine Pollutant: No;

Special precautions for user

No available information

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Toxic Substance Control Act (TSCA)

CAS Number	Ingredient	Toxic Substance Control Act (TSCA)	Comments	Status
0000107-15-3	Ethanediamine	Yes		ACTIVE

The following flags are used:
•Active - indicates commercial status designation of active
•E - indicates a substance that is the subject of a Section 5(e) Consent Order under TSCA.
•F - indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
•N - indicates a polymeric substance containing no free-radical initiator in its Inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
•P - indicates a commenced Premanufacture Notice (PMN) substance.
•R - indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
•S - indicates a substance that is identified in a final Significant New Uses Rule.
•SP - indicates a substance that is identified in a proposed Significant New Uses Rule.
•T - indicates a substance that is the subject of a final Section 4 test rule under TSCA.
•UVCB Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials •XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
•Y1 - indicates a polymer that has a number-average molecular weight greater than 1,000 and that was exempt under the 1984 polymer exemption rule.
•Y2 - indicates a polymer that is a polyester and that was exempt under the 1984 polymer exemption rule.

EPCRA 302 Extremely Hazardous:

Ethanediamine

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:
This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Mass RTK Substances (>1%) :

Ethanediamine

New Jersey RTK Substances (>1%):

Ethanediamine

Pennsylvania RTK Substances (>1%):

Ethanediamine

OSHA Process Safety Management Standard Highly Hazardous Chemicals, Toxics and Reactives:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA List of Regulated Substances under the Risk Management Plan (RMP) Program:

Ethanediamine

US EPA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) under the Minimum Risk Exemption:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA List II or Essential Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA - Exempt Chemical Mixtures - List 1 and 2:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US DHS Chemical Facility Anti-Terrorism Standards (CFATS):

Ethanediamine

CERCLA Chemicals and RQs (lbs):

Ethanediamine = (5,000.00)

Section 16. Other information

Revision Date 24 September, 2026

DISCLAIMER OF RESPONSIBILITY
The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume damage or expense arising out of or in any way responsibility and expressly disclaim

liability for loss, connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

The full text of the phrases appearing in section 3 is:

H226 Flammable liquid and vapor.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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