



Silver Fern Chemical, Inc.  
Safety Data Sheet  
Diethanolamine 99

Revision Date: 05/30/2025

**Section 1. Identification**

**Product Identity** Diethanolamine 99  
**Other means of identification** DEA; Bis(2-hydroxyethyl)amine;  
Diethylamine; 2,2'-Dihydroxydiethylamine;  
2,2'-Iminodiethanol; N,N-Diethanolamine.

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

**Identified uses:** Chemical intermediate. Gas treating. We recommend that you use this product in a manner consistent with the listed use. If your intended use is not consistent with the stated use, please contact your sales or technical service representative.

**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  
Customer Service: 1-866-282-3384 /  
info@silverfernchemical.com  
Website - www.silverfernchemical.com

**24 hour Emergency Telephone No.** Infotrac: 1-800-535-5053  
Outside USA & Canada +1-352-323-3500

**Section 2. Hazard(s) identification**

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

Acute toxicity(oral), category 4;H302	Harmful if swallowed.
Skin corrosion/irritation category 2;H315	Causes skin irritation.
Serious eye damage / eye irritation, category 1;H318	Causes serious eye damage.



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Specific target organ toxicity, repeated exposure  
category 2;H373

May cause damage to organs  
through prolonged or repeated  
exposure.

**Label elements**



**Danger**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H373 May cause damage to organs through prolonged or repeated exposure.

**[Prevention]**

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.

P280 Wear protective gloves, eye protection, and face 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.

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.

P314 Get Medical advice or attention if you feel unwell.

P330 Rinse mouth.

P332+313 If skin irritation occurs: Get medical attention.

P362+364 Take off contaminated clothing and wash it before reuse.

**[Storage]**

No GHS storage statements

**[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.



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Does not contain component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS) per US or Canadian regulations.

### **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).

<b>Ingredient/Chemical Designations</b>	<b>Weight %</b>	<b>GHS Classification</b>	<b>Notes</b>
Diethanolamine CAS Number: 111-42-2 Synonyms: No available information	>99 %	Acute toxicity(oral), category 4;H302 Specific target organ toxicity, repeated exposure category 2;H373 Skin corrosion/irritation category 2;H315 Serious eye damage / eye irritation, category 1;H318	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.  
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.



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**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.

**Eyes** Causes serious eye damage.

**Skin** Causes skin irritation.

**Ingestion** Harmful if swallowed.

**Section 5. Fire-fighting measures**

**Extinguishing media**

Recommended extinguishing media; alcohol resistant foam, CO<sub>2</sub>, powder, water spray.

Unsuitable extinguishing media: Do not use; water jet.

**Special hazards arising from the substance or mixture**

Hazardous decomposition: No hazardous decomposition data available.

Do not breathe dust, fume, 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.**

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## 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.

## Section 7. Handling and storage

### Precautions for safe handling

Handle containers carefully to prevent damage and spillage.  
See section 2 for further details. - [Prevention]

### Conditions for safe storage, including any incompatibilities

Incompatible materials: No available information  
See section 2 for further details. - [Storage]

### Specific end use(s)

No available information



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## Section 8. Exposure controls / personal protection

### Control parameters

#### Exposure Limits

CAS No.	Ingredient	Source	Value
111-42-2	Diethanolamine	OSHA	No Established Limit
		ACGIH	1 mg/m <sup>3</sup> (IFV) Inhalable Fraction and Vapor
		NIOSH	TWA 3 ppm (15 mg/m <sup>3</sup> )

### Exposure controls

<b>Respiratory</b>	If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.
<b>Eyes</b>	Protective safety glasses recommended
<b>Skin</b>	Avoid skin contact. Protective gloves recommended.
<b>Engineering Controls</b>	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.
<b>Other Work Practices</b>	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

<b>Physical State</b>	Liquid
<b>Color</b>	Clear, Colorless
<b>Odor</b>	Ammonia-like



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<b>Melting point / freezing point</b>	27 °C (81 °F) (melting)
<b>Initial boiling point and boiling range</b>	268°C (514°F)
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Upper/lower flammability or explosive limits</b>	<b>Lower Explosive Limit:</b> No available information <b>Upper Explosive Limit:</b> No available information
<b>Flash Point</b>	163°C (325°F) PMCC; ASTM D93
<b>Auto-ignition temperature</b>	365-370 °C (689-698°F) [DIN 51794]
<b>Decomposition temperature</b>	200 °C (392 °F)
<b>pH</b>	11 (10% solution)
<b>Viscosity (cSt)</b>	390 Pa.s at 30 °C (dynamic) 357.2 mm <sup>2</sup> /s @ 30°C (kinematic)
<b>Solubility in Water</b>	No available information
<b>Partition coefficient n-octanol/water (Log Kow)</b>	No available information
<b>Vapor pressure (Pa)</b>	0.000037 kPa at 25 °C (77 °F)
<b>Relative Density</b>	No available information
<b>Vapor Density</b>	3.7 (air=1)
<b>Evaporation rate (Ether = 1)</b>	< 0.01 (n-Butyl Acetate = 1)
<b>Oxidising properties</b>	No available information
<b>Explosive properties</b>	No available information

**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**

Avoid high temperatures and contact with incompatible material



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**Incompatible materials**

No available information

**Hazardous decomposition products**

No hazardous decomposition data available.

**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
Diethanolamine - (111-42-2)	ca. 1,100.00, Rat - Category: NA	No data available.	No data available.	No data available.	No data available.

**Carcinogen Data**

CAS No.	Ingredient	Source	Value
111-42-2	Diethanolamine	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: Yes; Group 3: No;
		ACGIH	A3

Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	2	Causes skin irritation.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable





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Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	2	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	---	Not Applicable

**Possible routes of entry:**No available information

**Symptoms and effects, both acute and delayed:**

No specific symptom data available.

No chronic toxicity or long term toxicity information available. Treat symptomatically.

**Eyes** Causes serious eye damage.

**Skin** Causes skin irritation.

**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
Diethanolamine - (111-42-2)	460.00, Salmo gairdneri	30.10, Ceriodaphnia dubia	2.70, Raphidocelis 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.



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**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**

	<b>DOT (Domestic Surface Transportation)</b>	<b>IMO / IMDG (Ocean Transportation)</b>	<b>ICAO/IATA</b>
<b>UN number</b>	UN3077	Not Regulated	Not Regulated
<b>UN proper shipping name</b>	Environmentally hazardous substances, solid, n.o.s., molten(Diethanolamine)	Not Regulated	Not Regulated
<b>Transport hazard class(es)</b>	<b>Class:9</b> <b>Sub Class:</b> Not Applicable	<b>Class:</b> Not Applicable <b>Sub Class:</b> Not Applicable	<b>Class:</b> Not Applicable <b>Sub Class:</b> Not Applicable

**Packing group** III

**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



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(1910.1200) revised 2024 (GHS revision 7)

**Toxic Substance Control Act (TSCA)**

CAS Number	Ingredient	Toxic Substance Control Act (TSCA)	Comments	Status
0000111-42-2	Diethanolamine	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:**

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

**EPCRA 313 Toxic Chemicals:**

Diethanolamine

**Proposition 65 - Carcinogens (>0.0%):**

Diethanolamine



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**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:**



WARNING: This product can expose you to chemicals including [Diethanolamine], which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**Mass RTK Substances (>1%) :**

Diethanolamine

**New Jersey RTK Substances (>1%):**

Diethanolamine

**Pennsylvania RTK Substances (>1%):**

Diethanolamine

**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:**

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



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**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):**

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

**EPCRA 311/312 Chemicals and RQs (lbs):**

Diethanolamine ( 100.00)

<b>Section 16. Other information</b>
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**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.



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

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H373 May cause damage to organs through prolonged or repeated exposure.

**End of Document**