



Silver Fern Chemical, Inc.
Safety Data Sheet
1,3-Dioxolane Ultra Pure

Revision Date: 05/20/2025

Section 1. Identification

Product identifier

| | |
|-------------------------------|--------------------------|
| Product Identity | 1,3-Dioxolane Ultra Pure |
| Other means of identification | 1,3-Dioxolane |

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

See Technical Data Sheet.

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 |
| Emergency 24 hour Emergency Telephone No. | Emergency telephone number Infotrac: 1-800-535-5053; Outside USA & Canada +1-352- 323-3500 |
| Customer Service: | |

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 2;H225

Highly Flammable liquid and vapor.



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Label elements



Danger

H225 Highly flammable liquid and vapor.

[Prevention]

P210 Keep away from heat, sparks, open flames, and other ignition sources - No smoking.

P233 Keep container tightly closed.

P235 Keep cool.

P240 Ground, bond container and receiving equipment.

P241 Use explosion-proof electrical, ventilating, light, equipment.

P242 Use only non-sparking tools.

P243 Take action to prevent static discharges.

P280 Wear protective gloves, eye protection, and face protection.

[Response]

P303+361+353 IF ON SKIN (or hair): Remove, take off immediately all contaminated clothing. Rinse skin with water, shower.

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.

[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 US or Canadian regulations.



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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 |
|--|----------|-----------------------------------|-------------------|
| 1,3-dioxolane CAS Number: 646-06-0 Synonyms: Dioxolane | 80 - 100 | Flammable Liquid, category 2;H225 | 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



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symptomatically. See section 2 for further details.

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|--|
| Section 5. Fire-fighting measures |
|--|

Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, 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.
Keep away from heat, sparks, open flames, and other ignition sources - No smoking.
Keep container tightly closed.
Keep cool.
Ground, bond container and receiving equipment.
Use explosion-proof electrical, ventilating, light, equipment.
Use only non-sparking tools.
Take action to prevent static discharges.

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.

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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 |
|----------|---------------|--------|----------------------|
| 646-06-0 | 1,3-dioxolane | OSHA | No Established Limit |
| | | ACGIH | 20 ppm |
| | | NIOSH | No Established Limit |

Exposure controls

| | |
|-----------------------------|---|
| Respiratory | If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators. |
| Eyes | Protective safety glasses recommended |
| Skin | Avoid skin contact. Protective gloves recommended. |
| 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 |
| Odor | Odorless |



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|--|--|
| Melting point / freezing point | -95°C (-139°F) |
| Initial boiling point and boiling range | 75°C (167°F) to 76°C (169°F) at 1,013 hPa. |
| Flammability (solid, gas) | Not Applicable |
| Upper/lower flammability or explosive limits | Lower Explosive Limit: No available information Upper Explosive Limit: No available information |
| Flash Point | -3°C (27°F) Closed Cup. |
| Auto-ignition temperature | 250°C (482°F) Notes: 1,019.3 - 1,027.5 hPa (764.5 - 770.7 mmHg). |
| Decomposition temperature | No available information |
| pH | No available information |
| Viscosity (cSt) | No available information |
| Solubility in Water | Soluble in water. |
| Partition coefficient n-octanol/water (Log Kow) | No available information |
| Vapor pressure (Pa) | 93 hPa at 20°C (68°F) |
| Relative Density | 1.06 g/ml at 25°C (77°F) |
| Vapor Density | 2.56 Air = 1.0 |
| Evaporation rate (Ether = 1) | No available information |
| Oxidising properties | No available information |
| Explosive properties | No available information |
| Surface tension | 71.7 mN/m at 20°C (68°F). |

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 |
|----------------------------|--------------------------------|------------------------------------|---------------------------------------|---|--------------------------------|
| 1,3-dioxolane - (646-06-0) | 3,000.00, Rat - Category: 5 | 8,480.00, Rabbit - Category: NA | No data available. | No data available. | No data available. |

Carcinogen Data

| CAS No. | Ingredient | Source | Value |
|----------|---------------|--------|---|
| 646-06-0 | 1,3-dioxolane | OSHA | Regulated Carcinogen: No; |
| | | NTP | Known: No; Suspected: No; |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; |
| | | ACGIH | No Established Limit |

| Classification | Category | Hazard Description |
|-------------------------------|----------|--------------------|
| Acute toxicity (oral) | --- | Not Applicable |
| Acute toxicity (dermal) | --- | Not Applicable |
| Acute toxicity (inhalation) | --- | Not Applicable |
| Skin corrosion/irritation | --- | Not Applicable |
| Serious eye damage/irritation | --- | Not Applicable |
| 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 | --- | Not Applicable |
| 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.

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 |
|----------------------------|--------------------------|-------------------------------|----------------------|
| 1,3-dioxolane - (646-06-0) | No data available. | No data available. | No data available. |

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



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Section 13. Disposal considerations

Waste treatment methods

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

Section 14. Transport information

| | DOT (Domestic Surface Transportation) | IMO / IMDG (Ocean Transportation) | ICAO/IATA |
|----------------------------|---------------------------------------|-------------------------------------|-------------------------------------|
| UN number | UN1166 | UN1166 | UN1166 |
| UN proper shipping name | UN1166,Dioxolane,3,II | Dioxolane | Dioxolane |
| Transport hazard class(es) | Class:3 Sub Class:Not Applicable | Class:3 Sub Class:Not Applicable | Class:3 Sub Class:Not Applicable |
| 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)



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Toxic Substance Control Act (TSCA)

| CAS Number | Ingredient | Toxic Substance Control Act (TSCA) | Comments | Status |
|--------------|---------------|------------------------------------|----------|--------|
| 0000646-06-0 | 1,3-dioxolane | 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:

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.



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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:

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%) :

1,3-dioxolane

New Jersey RTK Substances (>1%):

1,3-dioxolane

Pennsylvania RTK Substances (>1%):

1,3-dioxolane

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:

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

| |
|---|
| <p>Section 16. Other information</p> |
|---|

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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:

H225 Highly flammable liquid and vapor.

End of Document