



# Silver Fern Chemical, Inc.

## Safety Data Sheet

### 1,3-Dioxolane Ultra Pure

Date Issued : 03/03/2022

SDS No : 122

#### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** 1,3-Dioxolane Ultra Pure

**Distributor:**

Silver Fern Chemical, Inc.  
2226 Queen Anne Avenue North  
Seattle WA 98109, USA  
Phone: 1-866-282-3384  
Info@silverfernchemical.com

**Emergency phone number:**

24 Hour Emergency Contact  
Infotrac 1-800-535-5053 (USA & Canada)  
Outside USA & Canada 1-352-323-3500

#### 2. HAZARDS IDENTIFICATION

##### GHS CLASSIFICATIONS

**Health:**

Reproductive Toxicity, Category 1B  
Eye Irritation, Category 2A

**Physical:**

Flammable Liquids, Category 2

##### GHS LABEL

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)



Flame



Health  
hazard



Exclamation  
mark

**SIGNAL WORD:** DANGER

##### HAZARD STATEMENTS

H319: Causes serious eye irritation.  
H225: H225: Highly flammable liquid and vapor.  
H360: May damage fertility or the unborn child.

##### PRECAUTIONARY STATEMENTS

**Prevention:**

P202: Do not handle until all safety precautions have been read and understood.  
P240: Ground and bond container and receiving equipment.  
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233: Keep container tightly closed.  
P201: Obtain special instructions before use.

P243: Take action to prevent static discharges.  
P241: Use explosion-proof [electrical/ventilating/lighting] equipment.  
P242: Use non-sparking tools.  
P264: Wash skin thoroughly after handling.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.  
P308+P313: IF exposed or concerned: Get medical attention.  
P337+P313: If eye irritation persists: Get medical attention.  
P370+P378: In case of fire: Use appropriate media to extinguish.

**Storage:**

P403+P235: Store in a well-ventilated place. Keep cool.  
P405: Store locked up.

**Disposal:**

P501: Dispose of contents/container to a licensed contractor in accordance with local, state and federal regulations.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name	Wt. %	CAS
1,3-dioxolane	90 - 100	646-06-0

**4. FIRST AID MEASURES**

**EYES:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.  
**SKIN:** Wash off with soap and plenty of water. Consult a physician.  
**INGESTION:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.  
**INHALATION:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**5. FIRE FIGHTING MEASURES**

**GENERAL HAZARD:** Do not use water jet.  
**EXTINGUISHING MEDIA:** Dry powder or dry sand.  
**FIRE FIGHTING PROCEDURES:** Use water spray to cool unopened containers.  
**FIRE FIGHTING EQUIPMENT:** Do not enter confined fire space without full helmet with face shield, rubber boots, gloves and fire coat, including a NIOSH approved self-contained breathing apparatus.

**6. ACCIDENTAL RELEASE MEASURES**

**ENVIRONMENTAL PRECAUTIONS**

**WATER SPILL:** Avoid discharge into drains, water courses, or onto the ground.  
**LAND SPILL:** Prevent contamination of the soil.  
**GENERAL PROCEDURES:** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all source of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Contain spillage and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local regulations.

**7. HANDLING AND STORAGE**

**HANDLING:** Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. Keep away from sources of ignition- no smoking. Take measures to prevent the build up of electrostatic charge.  
**STORAGE:** Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

**ENGINEERING CONTROLS:** Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

#### **PERSONAL PROTECTIVE EQUIPMENT**

**EYES AND FACE:** Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**SKIN:** Handle with butyl-rubber gloves. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**RESPIRATORY:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**PROTECTIVE CLOTHING:** Impervious clothing. Selection of specific items such as face shield, gloves, boots, apron or full-body suit will depend on operation.

**WORK HYGIENIC PRACTICES:** Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink, or smoke. Wash hands after handling.

### **9. PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL STATE:** Liquid, slurry or waxy solid.

**ODOR:** Odorless

**APPEARANCE:** Clear.

**COLOR:** Colorless.

**pH:** No data available.

**FLASH POINT AND METHOD:** -3°C (27°F) Closed Cup.

**AUTOIGNITION TEMPERATURE:** 250°C (482°F)

**Notes:** 1,019.3 - 1,027.5 hPa (764.5 - 770.7 mmHg).

**VAPOR PRESSURE:** 93 hPa at 20°C (68°F)

**VAPOR DENSITY:** 2.56 Air = 1.0

**BOILING POINT:** 75°C (167°F) to 76°C (169°F) at 1,013 hPa.

**MELTING POINT:** -95°C (-139°F)

**SOLUBILITY IN WATER:** Soluble in water.

**PARTITION COEFFICIENT: N-OCTANOL/WATER:** log Pow: 0.37

**EVAPORATION RATE:** No data available.

**DENSITY:** 1.06 g/ml at 25°C (77°F)

**COMMENTS:** Surface tension: 71.7 mN/m at 20°C (68°F).

### **10. STABILITY AND REACTIVITY**

**STABILITY:** Stable under recommended storage conditions.

Contains the following stabiliser(s): BHT (0.0075%).

**CONDITIONS TO AVOID:** Heat, flames, and sparks.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Vapors may form explosive mixture with air.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon oxides.

**INCOMPATIBLE MATERIALS:** Oxidizing materials.

### **11. TOXICOLOGICAL INFORMATION**

#### **ACUTE TOXICITY**

**DERMAL LD<sub>50</sub>:** 1500 mg/kg, rat.

**ORAL LD<sub>50</sub>:** 5200 mg/kg, rat (OECD Guideline 401).

**INHALATION LC<sub>50</sub>:** 68.4 mg/l, rat (OECD Guideline 403), 4h.

**SKIN CORROSION/IRRITATION:**

Skin- rabbit

Results: No skin irritation

**SERIOUS EYE DAMAGE/IRRITATION:**

Eye- rabbit

Results: Irritating to eyes

**RESPIRATORY OR SKIN SENSITISATION:**

mouse

Result: Does not cause skin sensitisation

(OECD Test Guideline 429)

**GERM CELL MUTAGENICITY:**

In vitro mammalian cell gene mutation test

mouse lymphoma cells

Result: negative

OECD Test Guideline 474

Mouse - male and female - Bone marrow

Result: negative

**CARCINOGENICITY**

**NOTES:** 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, NTP, or OSHA.

**12. ECOLOGICAL INFORMATION**

**BIOACCUMULATION/ACCUMULATION:** No data available.

**DISTRIBUTION:** No data available.

**AQUATIC TOXICITY (ACUTE)**

**96-HOUR LC<sub>50</sub>:** > 95.4 mg/l, *Lepomis macrochirus*, OECD Test Guideline 203.

**48-HOUR EC<sub>50</sub>:** > 772 mg/l, *Daphnia magna* (Water flea), Immobilization (OECD Test Guideline 202).

**96-HOUR EC<sub>50</sub>:** > 877 mg/l, 72h, *Pseudokirchneriella subcapitata*, OECD Test Guideline 201.

**CHEMICAL FATE INFORMATION:**

Biodegradability

aerobic - Exposure time 35d

Result: 3.7% - According to the results of tests of biodegradability, this product is not readily biodegradable (OECD Test Guideline 301D)

**13. DISPOSAL CONSIDERATIONS**

**PRODUCT DISPOSAL:** Contact a licensed professional waste disposal service to dispose of this material. Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incenerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

**EMPTY CONTAINER:** Dispose of as unused product.

**14. TRANSPORT INFORMATION**

**DOT (DEPARTMENT OF TRANSPORTATION)**

**PROPER SHIPPING NAME:** Dioxolane

**PRIMARY HAZARD CLASS/DIVISION:** 3

**UN/NA NUMBER:** UN1166

**PACKING GROUP:** II

**AIR (ICAO/IATA)**

**SHIPPING NAME:** Dioxolane

**UN/NA NUMBER:** UN1166

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**PRIMARY HAZARD CLASS/DIVISION:** 3

**PACKING GROUP:** II

**VESSEL (IMO/IMDG)**

**SHIPPING NAME:** Dioxolane

**UN/NA NUMBER:** UN1166

**PRIMARY HAZARD CLASS/DIVISION:** 3

**PACKING GROUP:** II

**EmS:** F-E, S-D

## 15. REGULATORY INFORMATION

### UNITED STATES

#### TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
1,3-dioxolane	646-06-0

### CLEAN AIR ACT

#### 40 CFR PART 68---RISK MANAGEMENT FOR CHEMICAL ACCIDENT RELEASE PREVENTION:

HON Rule - SOCM I Chemicals: Group I. Reactivity Factors for VOCs in Aerosol Coatings: 5.47 g Ozone/g. Volatile Organic Compounds (VOCs) in SOCM I: Present.

#### CLEAN AIR ACT (HAZARDOUS AIR POLLUTANTS):

New Hampshire - Regulated Toxic Air Pollutants - Ambient Air Levels - 24h De Minimis: 5.1 lb/day. 24h: 427 µg/m<sup>3</sup>. Annual: 203 µg/m<sup>3</sup>. Annual De Minimis: 1852 lb/yr. Class II.

North Dakota - Air Pollutants - Guideline Concentrations - 8h: 1.212 mg/m<sup>3</sup>.

Ohio - Toxic Air Contaminants: Present.

### REGULATIONS

#### STATE REGULATIONS:

Right To Know States:

New Jersey- Hazardous Substance List: All components are listed or exempt.

New Jersey- Special Health Hazards Substances List: All components are listed or exempt.

Pennsylvania: All components are listed or exempt.

Massachusetts: All components are listed or exempt.

**CALIFORNIA PROPOSITION 65:** This product does not require a warning under California Prop. 65.

### COMMENTS

Global Chemical Inventories:

Australia (AICS) - All components are listed or exempt.

Canada (DSL) - All components are listed or exempt.

China (IECSC) - All components are listed or exempt.

EC EINECS - All components are listed or exempt.

Japan (ENCS) - All components are listed or exempt.

Japan (ISHL) - All components are listed or exempt.

S. Korea (KECI Annex1) - All components are listed or exempt.

Mexico - All components are listed or exempt.

New Zealand (NZIoC) - All components are listed or exempt.

Philippines (PICCS) - All components are listed or exempt.

Taiwan (TCSI) - All components are listed or exempt.

Thailand (FDA) - All components are listed or exempt.

Vietnam (NCI) - All components are listed or exempt.

## 16. OTHER INFORMATION

**REASON FOR ISSUE:** Original Version

Silver Fern Chemical, Inc.

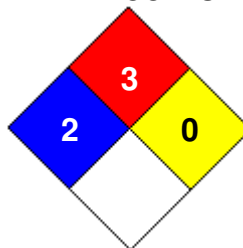
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**HMIS RATING**

<b>HEALTH</b>	*	<b>3</b>
<b>FLAMMABILITY</b>		<b>3</b>
<b>PHYSICAL HAZARD</b>		<b>0</b>
<b>PERSONAL PROTECTION</b>		

**NFPA CODES**

**HMIS RATINGS NOTES:** \* Chronic Health Hazard

**MANUFACTURER DISCLAIMER:** The information is based on the data of which we are aware and is believed to be correct as of

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Approved - TL 4-29-24