SILVER FERN CHEMICAL

Safety Data Sheet

Glycol Ether DPNP

SECTION 1: IDENTIFICATION

Product Name: Glycol Ether DPNP

CAS Number: 29911-27-1

Chemical Name: Dipropylene glycol monopropyl ether

Synonyms: 1-(2-propoxy-1-methylethoxy)-2-propanol; dipropylene glycol normal-propyl ether

Uses: A slow-evaporating glycol ether with an excellent balance of hydrophilic and hydrophobic character. Effective coalescent in water-borne coatings. Active solvent for solvent-based coatings. Chemical intermediate for the production of epoxides, acid ester derivatives, solvents, and plasticizers.

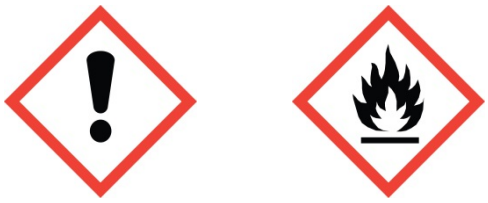
Company
Silver Fern Chemical, Inc.
2226 Queen Anne Avenue North
Suite #C
Seattle WA 98109, USA

Business Contact
Customer Service: 1-866-282-3384
info@silverfernchemical.com

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

SECTION 2: HAZARD IDENTIFICATION

Warning



H227: Combustible liquid

H320: Causes eye irritation

H316: Causes mild skin irritation

H305: May be harmful if swallowed and enters airways

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

CAS #	Content (W/W)	Hazardous Ingredients
29911-27-1	>99.0%	Glycol Ether DPNP

SECTION 4: FIRST AID MEASURES

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention.

IF IN EYES: Remove contact lenses if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: 88 º C / 190 º F

Extinguishing Media

Suitable: SMALL FIRE: Use dry chemicals, CO2, water spray or alcohol-resistant foam

LARGE FIRE: Use water spray, water fog or alcohol-resistant foam

Unsuitable: Do not use solid water stream.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighter's protective clothing will only provide limited protection.

Environmental precautions: In the event of a spill, the focus is on containing the spill to prevent contamination of soil, ditches, sewers, waterways, or groundwater. For small spills, DPNB should be absorbed with sand or vermiculite. Collect the material in suitable and properly labeled containers.

Further information: Industrial spills or releases are infrequent and generally contained. If a large spill does occur, contain spilled material if possible. Pump into suitable and properly labeled containers using appropriate safety equipment.

SECTION 7: HANDLING AND STORAGE

Storage: Store in cool, dry, well-ventilated area away from heat, ignition sources, and direct sunlight. Keep containers tightly closed. WARNING: Hot organic chemical vapors or mists can suddenly and without warning combust when mixed with air.

Handling: Wash thoroughly after handling, especially before eating, drinking, smoking, and using restroom facilities. Wash contaminated goggles face shield, and gloves. Professionally launder contaminated clothing before re-use.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Personal Protective Equipment (PPE)

Respiratory protection: Avoid breathing vapor and/or mists. Wear approved equipment. High airborne concentrations may necessitate the use of self-contained breathing apparatus (SCBA) or a supplied air respirator.

Hand protection: Wear appropriate impervious gloves.

Eye protection: Wear chemical splash goggles. An eye wash facility should be readily available.

Body protection: Wear appropriate protective clothing.

General safety and hygiene measures: Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Use good personal hygiene practices. Promptly remove soiled clothing/wash thoroughly before reuse. Shower after work using plenty of soap and water.

Threshold Limit Values (TLV): N/A

Permissible Exposure Limits (PEL): N/A

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless and transparent liquid
Solubility:	Soluble in water
Boiling Point:	212^{0}C
Vapor Pressure:	10 Pa @ 20^{0}C
Refractive Index:	n20/D 1.426(lit.)
Specific Gravity:	0.919 (25/25^{0}C)
Flash Point:	88°C (Close Cup)
Viscosity:	11 centipoise（25°C）
Relative density:	0.922 (Water=1)

SECTION 10: STABILITY AND REACTIVITY

Conditions to avoid: Extended contact with air or oxygen. The potential for peroxide formation is enhanced when these solvents are used in processes such as distillation. Heat, sparks, open flame, other ignition sources, and oxidizing conditions. Ignition may occur at temperatures below those published in the literature as autoignition or ignition temperatures.

Substances to avoid: Air or oxygen. Strong acids. Strong oxidizing agents.

Hazardous reactions: Not expected to occur.

Decomposition products: Incomplete combustion may produce carbon monoxide and other toxic gases.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity - Lethal Doses

LD50 (Oral)	Rat	>2,000 MG/KG
LD50 (Skin)	Rat	>2,000 MG/KG
	Rabbit	>5,000 MG/KG

Reproductive effects
Male rats and female mice ingesting multi-gram quantities of dipropylene glycol for 90-days exhibited changes in testis and estrous cycle that appeared secondary to clinical- and systemic toxicity, debilitation and death. Data available on related homologues suggest it is unlikely to affect fertility or reproduction at lower exposures that do not cause morbidity or mortality.

Developmental Toxicity
Results from studies in pregnant rats and rabbits demonstrate this subtance is not teratogenic or fetotoxic.

Genetic Toxicity
Negative for genotoxicity both in vitro and in vivo tests.

Carcinogenicity
No evidence of carcinogenic activity in rats or mice exposed to high concentrations

SECTION 12: ECOLOGICAL INFORMATION

Bioaccumulation: Not expected to bioaccumulate in aquatic organisms.

Biodegradation: This material is expected to be readily biodegradable. An average of 92% of the material was degraded after 23 days.

Abiotic Degradation: not known –no data available

Mobility in soil, water: water soluble; moves readily in soil and water

Aquatic Toxicity

LC50 (Fish, 96hr) 100mg/litre

LC50 (Crustacea, 48hr) >100mg/litre (Daphnia magna)

EC50/EC90 (Algae) 1,000mg/litre ("green algae")

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal of substance: do not flush to sewer, recycle solvent if possible, local regulations may permit disposal in sanitary landfill, may be incinerated in approved facility.

Container disposal:
Drums should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use.

Pails must be vented and thoroughly dried prior to crushing and recycling.

IBCs (intermediate bulk containers): polyethylene bottle must be pressure tested & recertified at 30 months. Replace at 60 months (5yrs). Steel containers must be inspected; pressure tested & recertified every 5 years.

Never cut, drill, weld or grind on or near this container, even if empty

SECTION 14: TRANSPORT INFORMATION

Canada TDG	PIN	UN - not regulated for transport
AND	Shipping Name	not regulated for transport
U.S.A. 49 CFR	PIN	NA-1993
	Shipping Name	Combustible Liquids N.O.S. (Dipropylene glycol n-propyl ether)
	Class & Packing Group	3, combustible liquid
Marine Pollutant		not a marine pollutant
ERAP Required		NO

Safety Mark, USA

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

SARA 302/304
No chemicals in this material with known CAS numbers are subject to the reporting requirements.

SARA 311/312
Based upon available information, this material is classified as the following health and/or physical hazards according to Section 311 & 312:
Fire Hazard.

SARA 313
This product contains no known chemicals regulated under SARA 313.

This product contains no known chemicals regulated by California's Proposition 65.

This product contains no known chemicals regulated by New Jersey's Worker and Community Right to Know Act.

No components are subject to the Massachusetts Right to Know Act.

This product contains the following chemicals regulated by Pennsylania's Right to Know Act:
25265-71-8 Dipropylene Glycol

SECTION 16: OTHER INFORMATION

DISCLAIMER OF RESPONSIBILITY

The information on this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed 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 responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this MSDS information may not be applicable.

<end of document>