



# SILVER FERN CHEMICAL, INC.

## Safety Data Sheet N-Propyl Bromide

### 1. Identification

<b>Product Name</b>	<b>1-Bromopropane</b>
<b>Synonyms</b>	N-Propyl Bromide
<b>Recommended Use</b>	Laboratory chemicals.
<b>Uses advised against</b>	No Information available

#### Details of the supplier of the safety data sheet

**Distributor**

Silver Fern Chemical, Inc.  
2226 Queen Anne Avenue North, Suite C  
Seattle WA 98109, USA  
Phone: 1-866-282-3384

**Business Contact**

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

**24 Hour Emergency Contact**

**Infotrac 1-800-535-5053 (USA & Canada)**  
**Outside USA & Canada 1-352-323-3500**

### 2. Hazard(s) identification

**Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 2
Skin Corrosion/irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Reproductive Toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Respiratory system, Central nervous system (CNS).	
Specific target organ toxicity - (repeated exposure)	Category 2

**Label Elements****Signal Word**

Danger

**Hazard Statements**

H225 Highly flammable liquid and vapor  
H315 Causes skin irritation  
H320 Causes serious eye irritation  
H335 May cause respiratory irritation  
H336 May cause drowsiness or dizziness  
H360 May damage fertility or the unborn child  
H372 May cause damage to organs through prolonged or repeated exposure



### Precautionary Statements

#### Prevention

- P201 Obtain special instructions before use  
 P202 Do not handle until all safety precautions have been read and understood  
 P281 Use personal protective equipment as required  
 P280 Wash face, hands and any exposed skin thoroughly after handling  
 P284 Wear eye/face protection  
 P260 Do not breathe dust/fume/gas/mist/vapors/spray  
 P271 Use only outdoors or in a well-ventilated area  
 P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
 P233 Keep container tightly closed  
 P240 Ground/bond container and receiving equipment  
 P241 Use explosion-proof electrical/ventilating/lighting/equipment  
 P242 Use only non-sparking tools  
 P243 Take precautionary measures against static discharge  
 P235 Keep cool  
 P308+P313 **IF exposed or concerned:** Get medical attention/advice  
 P304+P340 **IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 P332+P313 **IF skin irritation occurs:** Get medical advice/attention  
 P303+P361P+P353 **IF ON SKIN (or hair):** Take off immediately all contaminated clothing. Rinse skin with water/shower  
 P363 Wash contaminated clothing before reuse  
 P305+P351+P338+P337+P313 **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If eye irritation persists: Get medical advice/attention  
 P370+P378 In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction  
 P405 Store locked up  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed  
 P501 Dispose of contents/container to an approved waste disposal plant

#### **Hazards not otherwise classified (HNOC)**

None identified

### 3. Composition / information on ingredients

Component	CAS-No	Weight %
n-Propyl bromide	106-94-5	99

### 4. First-aid measures

- Eye Contact** Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
- Skin Contact** Wash off immediately with soap and plenty of water while removing all contaminated

	clothes and shoes. Immediate medical attention is required.
<b>Inhalation</b>	Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediate medical attention is required.
<b>Ingestion</b>	Call a physician immediately. Clean mouth with water.
<b>Most important symptoms/effects</b>	Breathing difficulties. . Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting
<b>Notes to Physician</b>	Treat symptomatically

## 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Water spray. Carbon dioxide (CO <sub>2</sub> ). Dry chemical. chemical foam. Cool closed containers exposed to fire with water spray.
<b>Unsuitable Extinguishing Media</b>	No information available
<b>Flash Point</b>	-4.5 °C / 23.9 °F
<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	490 °C / 914 °F
<b>Explosion Limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	4.60%
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available

### Specific Hazards Arising from the Chemical

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

### Hazardous Combustion Products

Carbon monoxide (CO) Carbon dioxide (CO<sub>2</sub>) Hydrogen halides

### Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### NFPA

<b>Health</b>	<b>Flammability</b>	<b>Instability</b>	<b>Physical hazards</b>
2	3	0	N/A

## 6. Accidental release measures

<b>Personal Precautions</b>	Remove all sources of ignition. Take precautionary measures against static discharges.
<b>Environmental Precautions</b>	See Section 12 for additional ecological information. Do not flush into surface water or sanitary sewer system.
<b>Methods for Containment and Clean Up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

## 7. Handling and storage

<b>Handling</b>	Avoid contact with skin and eyes. Do not breathe vapors or spray mist. Use explosion-proof equipment. Use only non-sparking tools. Keep away from open flames, hot surfaces and sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.
<b>Storage</b>	Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from heat and sources of ignition. Keep container tightly closed in a dry and well-ventilated

place.

## 8. Exposure controls / personal protection

### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
n-Propyl bromide	TWA: 0.1 ppm		

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
n-Propyl bromide			TWA: 10 ppm

### Legend

ACGIH - American Conference of Governmental Industrial Hygienists

### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting/equipment.

### Personal Protective Equipment

#### Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

#### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

#### Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

Physical State	Liquid
Appearance	No information available
Odor	aromatic
Odor Threshold	No information available
pH	No information available
Melting Point/Range	-110 °C / -166 °F
Boiling Point/Range	71 °C / 159.8 °F @ 760 mmHg
Flash Point	-4.5 °C / 23.9 °F
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	No data available
Lower	4.60%
Vapor Pressure	146 mmHg @ 20 °C
Vapor Density	4.34 (Air = 1.0)
Relative Density	1.353
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	490 °C / 914 °F
Decomposition Temperature	No information available
Viscosity	0.52 mPa.s at 20 °C
Molecular Formula	C3 H7 Br
Molecular Weight	122.99

## 10. Stability and reactivity

<b>Reactive Hazard</b>	None known, based on information available
<b>Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Keep away from open flames, hot surfaces and sources of ignition. Incompatible products.
<b>Incompatible Materials</b>	Strong oxidizing agents, Strong bases, Metals
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Hydrogen halides
<b>Hazardous Polymerization</b>	No information available.
<b>Hazardous Reactions</b>	None under normal processing.

## 11. Toxicological information

### Acute Toxicity

**Product Information** No acute toxicity information is available for this product

### **Component Information**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
n-Propyl bromide	3600 mg/kg ( Rat )	Not listed	253 g/m <sup>3</sup> ( Rat ) 30 min

**Toxicologically Synergistic Products** No information available

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Irritation** No information available

**Sensitization** No information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
n-Propyl bromide	106-94-5	Not listed	Not listed	A3	Not listed	Not listed

**Mutagenic Effects** Ames test: positive.

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** Teratogenic effects have occurred in experimental animals.

**STOT - single exposure** Respiratory system Central nervous system (CNS)

**STOT - repeated exposure** None known

**Aspiration hazard** No information available

**Symptoms / effects, both acute and delayed** Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

**Endocrine Disruptor Information** No information available

**Other Adverse Effects** See actual entry in RTECS for complete information.

## 12. Ecological information

### Ecotoxicity

Contains a substance which is: Harmful to aquatic organisms. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
n-Propyl bromide	Not listed	67.3 mg/L LC50 96 h	Not listed	Not listed

**Persistence and Degradability** Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** Will likely be mobile in the environment due to its volatility.

Component	log Pow
n-Propyl bromide	2.1

### 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. Transport information

#### DOT

UN-No UN2344  
Hazard Class 3  
Packing Group II

#### TDG

UN-No UN2344  
Hazard Class 3  
Packing Group II

#### IATA

UN-No 2344  
Proper Shipping Name BROMOPROPANES  
Hazard Class 3  
Packing Group II

#### IMDG/IMO

UN-No 2344  
Proper Shipping Name BROMOPROPANES  
Hazard Class 3  
Packing Group II

### 15. Regulatory information

#### International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
n-Propyl bromide	X	X	-	203-445-0	-		X	X	X	X	X

#### Legend:

X - Listed

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 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 proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

#### U.S. Federal Regulations

**TSCA 12(b)** Not applicable

**SARA 313** Not applicable

**SARA 311/312 Hazardous Categorization**

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act Not applicable

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration  
Not applicable

CERCLA  
Not applicable

**California Proposition 65** This product contains the following chemical known to the State of California to cause reproductive harm: n-Propyl bromide.

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
n-Propyl bromide	106-94-5	Developmental Female Reproductive Male Reproductive	-	Developmental

**State Right-to-Know**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
n-Propyl bromide	X	X	X	-	-

**U.S. Department of Transportation**

Reportable Quantity (RQ): N  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations**

Mexico - Grade No information available

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class B2 Flammable liquid  
D2A Very toxic materials



16. Other information

**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, 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 SDS information may not be applicable.

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