



**SILVER FERN**  
CHEMICAL INC

Product Name: DINP  
Revision Date: 25 Feb 2015  
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# SAFETY DATA SHEET

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT

**Product Name:** DINP

**Product Description:** High Molecular Weight General Purpose Plasticizer

**Intended Use:** Plasticizer for flexible PVC is used for durable goods, construction and industrial applications. Restrictions exist that limit use in children's toys or childcare articles that can be placed in the mouth. Plasticizer is not for use as a food additive or animal feed additive. See Section 15 and check relevant regulations.

### COMPANY IDENTIFICATION

**Supplier:**

**SILVER FERN CHEMICAL, INC.**

2226 Queen Anne Avenue North, Suite C  
Seattle, WA 98109, USA  
Phone: 866-282-3384

**Business Contact**

Customer service: (866) 282-3384  
[info@silverfernchemical.com](mailto:info@silverfernchemical.com)

**Emergency phone number:** 24 Hour Health Emergency Contact  
Infotrac (800) 535-5053 (USA & Canada)  
Outside USA & Canada (353)-323-3500

## SECTION 2 HAZARDS IDENTIFICATION

This material is not hazardous according to regulatory guidelines (see SDS Section 15).

**Other hazard information:**

**HAZARD NOT OTHERWISE CLASSIFIED (HNOC):** None as defined under 29 CFR 1900.1200.

### PHYSICAL / CHEMICAL HAZARDS

Material can accumulate static charges which may cause an ignition.

### HEALTH HAZARDS

Excessive exposure may result in eye, skin, or respiratory irritation.

### ENVIRONMENTAL HAZARDS

No significant hazards.

**NFPA Hazard ID:** Health: 0 Flammability: 1 Reactivity: 0



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HMIS Hazard ID: Health: 1 Flammability: 1 Reactivity: 0

**NOTE:** This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

### SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a complex substance.

#### Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
1,2- BENZENEDICARBOXYLIC ACID, DI-C8-10-BRANCHED ALKYL ESTERS, C9-RICH	68515-48-0	100 %	None

\* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

### SECTION 4 FIRST AID MEASURES

#### INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

#### SKIN CONTACT

Wash contact areas with soap and water.

#### EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

#### INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

### SECTION 5 FIRE FIGHTING MEASURES

#### EXTINGUISHING MEDIA

**Appropriate Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.



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**Inappropriate Extinguishing Media:** Straight Streams of Water

#### **FIRE FIGHTING**

**Fire Fighting Instructions:** Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

**Hazardous Combustion Products:** Oxides of carbon, incomplete combustion products, Smoke, Fume

#### **FLAMMABILITY PROPERTIES**

**Flash Point [Method]:** 214°C (417°F) ASTM D-93]

**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D

**Autoignition Temperature:** >350°C (662°F)

### **SECTION 6**

### **ACCIDENTAL RELEASE MEASURES**

#### **NOTIFICATION PROCEDURES**

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

#### **PROTECTIVE MEASURES**

Avoid contact with spilled material. See Section 5 for fire-fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

#### **SPILL MANAGEMENT**

**Land Spill:** Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. If liquid is too viscous for pumping, scrape it up with shovels into a suitable container for recycle or disposal. Recover by pumping or with suitable absorbent.

**Water Spill:** Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek advice of a specialist

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted.

Note: Local regulations may prescribe or limit action to be taken.



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## ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

## SECTION 7 HANDLING AND STORAGE

### HANDLING

Provide adequate ventilation if fumes or vapors are generated. Prevent small spills and leakage to avoid slip hazard. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

**Loading/Unloading Temperature:** [Ambient]  
**Transport Temperature:** [Ambient]  
**Transport Pressure:** [Ambient]

**Static Accumulator:** This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semi-conductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semi-conductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

### STORAGE

The container choice, for example storage vessel, may effect static accumulation and dissipation. Do not store in open or unlabeled containers. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.

**Storage Temperature:** [Ambient]  
**Storage Pressure:** [Ambient]

**Suitable Containers/Packing:** Drums; Barges; Tank Cars

**Suitable Materials and Coatings (Chemical Compatibility):** Carbon Steel; Stainless Steel; Polypropylene; Teflon; Aluminum; Nylon; Viton

**Unsuitable Materials and Coatings:** Butyl Rubber; Natural Rubber; Vinyls.

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)



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Substance Name	Form	Limit / Standard		NOTE	Source
1,2- BENZENEDICARBOXYLIC ACID, DI-C8-10- BRANCHED ALKYL ESTERS, C9-RICH	Aerosol.	TWA	5 mg/m3	N/A	ExxonMobil

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

No biological limits allocated.

## ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Adequate ventilation should be provided so that exposure limits are not exceeded.

## PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

**Respiratory Protection:** If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Half-face filter respirator

**Hand Protection:** Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use.

**Eye Protection:** If contact is likely, safety glasses with side shields are recommended.

**Skin and Body Protection:** Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

**Specific Hygiene Measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.



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Practice good housekeeping.

## ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**Note:** Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

### GENERAL INFORMATION

**Physical State:** Liquid  
**Form:** Clear  
**Color:** Colorless  
**Odor:** Mild  
**Odor Threshold:** N/D

### IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

**Relative Density:** N/D  
**Density (at 20 °C):** 970 kg/m<sup>3</sup> (8.09 lbs/gal, 0.97 kg/dm<sup>3</sup>)  
**Flammability (Solid, Gas):** N/A  
**Flash Point [Method]:** 214°C (417°F) [ASTM D-93]  
**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D  
**Autoignition Temperature:** >350°C (662°F)  
**Boiling Point / Range:** > 250°C (482°F)  
**Decomposition Temperature:** N/D  
**Vapor Density (Air = 1):** > 1 at 101 kPa  
**Vapor Pressure:** < 0.001 kPa (0.01 mm Hg) at 20 °C  
**Evaporation Rate (n-butyl acetate = 1):** N/D  
**pH:** N/A  
**Log Pow (n-Octanol/Water Partition Coefficient):** N/D  
**Solubility in Water:** Negligible  
**Viscosity:** 32.1 cSt (32.1 mm<sup>2</sup>/sec) at 40 °C | 108 cSt (108 mm<sup>2</sup>/sec) at 20°C  
**Oxidizing Properties:** See Hazards Identification Section.

### OTHER INFORMATION

**Freezing Point:** N/D  
**Melting Point:** N/A  
**Pour Point:** -48°C (-54°F)  
**Molecular Weight:** 418  
**Hygroscopic:** No  
**Coefficient of Thermal Expansion:** 0.00076 V/VDEGC



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<b>SECTION 10</b>	<b>STABILITY AND REACTIVITY</b>
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**REACTIVITY:** See sub-sections below.

**STABILITY:** Material is stable under normal conditions.

**CONDITIONS TO AVOID:** Excessive heat. High energy sources of ignition.

**MATERIALS TO AVOID:** Strong oxidizers

**HAZARDOUS DECOMPOSITION PRODUCTS:** Material does not decompose at ambient temperatures.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Hazardous polymerization will not occur.

<b>SECTION 11</b>	<b>TOXICOLOGICAL INFORMATION</b>
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**INFORMATION ON TOXICOLOGICAL EFFECTS**

<u>Hazard Class</u>	<u>Conclusion / Remarks</u>
<b>Inhalation</b>	
Acute Toxicity: (Rat) 4 hour(s) LC50 > 4.4 mg/l (Max. attainable aerosol conc.)	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 403
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures.
<b>Ingestion</b>	
Acute Toxicity (Rat): LD50 > 10000 mg/kg	Minimally Toxic. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 401
<b>Skin</b>	
Acute Toxicity (Rabbit): LD50 > 3160 mg/kg	Minimally Toxic. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 402
Skin Corrosion/Irritation: Data available.	Negligible irritation to skin at ambient temperatures. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 404
<b>Eye</b>	
Serious Eye Damage/Irritation: Data available.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 405
<b>Sensitization</b>	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: Data available.	Not expected to be a skin sensitizer. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 406
<b>Aspiration:</b> Data available.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.
<b>Germ Cell Mutagenicity:</b> Data available.	Not expected to be a germ cell mutagen. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 471 473
<b>Carcinogenicity:</b> Data available.	Not expected to cause cancer. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 451



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<b>Reproductive Toxicity:</b> Data available.	Not expected to be a reproductive toxicant. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 414 416
<b>Lactation:</b> No end point data for material.	Not expected to cause harm to breast-fed children.
<b>Specific Target Organ Toxicity (STOT)</b>	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: Data available.	Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for the material and structurally similar materials. Test(s) equivalent or similar to OECD Guideline 410 452

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = NTP CARC  
2 = NTP SUS

3 = IARC 1  
4 = IARC 2A

5 = IARC 2B  
6 = OSHA CARC

**SECTION 12 ECOLOGICAL INFORMATION**

The information given is based on data available for the material, the components of the material, and similar materials.

**ECOTOXICITY**

Material -- Not expected to be harmful to aquatic organisms.  
Material -- Not expected to demonstrate chronic toxicity to aquatic organisms.

**MOBILITY**

Material -- Expected to partition to sediment and wastewater solids. Minimally volatile.

**PERSISTENCE AND DEGRADABILITY**

**Biodegradation:**

Material -- Expected to be readily biodegradable.

**BIOACCUMULATION POTENTIAL**

Material -- Potential to bioaccumulate is low.

**ECOLOGICAL DATA**

**Ecotoxicity**

Test	Duration	Organism Type	Test Results
Aquatic - Acute Toxicity	96 hour(s)	Oncorhynchus mykiss	LC0 0.16 mg/l: data for the material
Aquatic - Acute Toxicity	48 hour(s)	Daphnia magna	EC0 0.06 mg/l: data for the material
Aquatic - Acute Toxicity	5 day(s)	Pseudokirchneriella	EC0 1.8 mg/l: data for the material





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		subcapitata	
Aquatic - Chronic Toxicity	284 day(s)	Oryzia latipes	NOEC 18.5 ug/g: data for the material
Aquatic - Chronic Toxicity	21 day(s)	Daphnia magna	NOEC 0.0036 mg/l: data for the material
Aquatic - Acute Toxicity	5 day(s)	Pseudokirchneriella subcapitata	NOEC 1.8 mg/l: data for the material

### Persistence, Degradability and Bioaccumulation Potential

Media	Test Type	Duration	Test Results
Air	Photolysis		Half-life (t1/2) 5.4 hour(s)
Sediment	Sediment Adsorption		log Koc 5.9
Water	Bioaccumulation	14 day(s)	BCF <3
Water	Ready Biodegradability	28 day(s)	Percent Degraded 70.5

NOTE: Not toxic to aquatic organisms at maximum water solubility.

## SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

### DISPOSAL RECOMMENDATIONS

Suitable routes of disposal are supervised incineration, preferentially with energy recovery, or appropriate recycling methods in accordance with applicable regulations and material characteristics at the time of disposal.

### REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

**Empty Container Warning** Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

## SECTION 14 TRANSPORT INFORMATION

**LAND (DOT):** Not Regulated for Land Transport



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**LAND (TDG):** Not Regulated for Land Transport

**SEA (IMDG):** Not Regulated for Sea Transport according to IMDG-Code

**Marine Pollutant:** No

**AIR (IATA):** Not Regulated for Air Transport

**SECTION 15 REGULATORY INFORMATION**

**OSHA HAZARD COMMUNICATION STANDARD:** This material is not considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

**Listed or exempt from listing/notification on the following chemical inventories:** AICS, DSL, ENCS, IECSC, KECI, PICCS, TSCA

**EPCRA SECTION 302:** This material contains no extremely hazardous substances.

**SARA (311/312) REPORTABLE HAZARD CATEGORIES:** None.

**SARA (313) TOXIC RELEASE INVENTORY:** This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

**California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986**

**⚠ WARNING:** This product may expose you to 1,2- BENZENEDICARBOXYLIC ACID, DI-C8-10- BRANCHED ALKYL ESTERS, C9-RICH, CAS Number 68515-48-0, 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).

**The following ingredients are cited on the lists below:**

Chemical Name	CAS Number	List Citations
1,2- BENZENEDICARBOXYLIC ACID, DI-C8-10- BRANCHED ALKYL ESTERS, C9-RICH	68515-48-0	10, 13, 18, 19

--REGULATORY LISTS SEARCHED--

- |               |                  |                   |             |
|---------------|------------------|-------------------|-------------|
| 1 = ACGIH ALL | 6 = TSCA 5a2     | 11 = CA P65 REPRO | 16 = MN RTK |
| 2 = ACGIH A1  | 7 = TSCA 5e      | 12 = CA RTK       | 17 = NJ RTK |
| 3 = ACGIH A2  | 8 = TSCA 6       | 13 = IL RTK       | 18 = PA RTK |
| 4 = OSHA Z    | 9 = TSCA 12b     | 14 = LA RTK       | 19 = RI RTK |
| 5 = TSCA 4    | 10 = CA P65 CARC | 15 = MI 293       |             |

Code key: CARC=Carcinogen; REPRO=Reproductive

Additional information:

Restrictions exist that limit use of this product in children's toys or childcare articles that can be placed in the mouth; check relevant regulations.



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<b>SECTION 16</b>	<b>OTHER INFORMATION</b>
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This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer.

N/D = Not determined, N/A = Not applicable

**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.

Approved - TL 1-30-2020