



## Safety Data Sheet (SDS)

Revision / Review Date: 1/25/15

### 1. Chemical Product and Company Identification

Product Name:	DINCH
Distributed By:	HB Chemical 1665 Enterprise Parkway Twinsburg Oh 44087 Phone - 330-920-8023
SDS Prepared By (w Suppliers Input):	HB Chemical
Chemical Name / Family:	1,2-Cyclohexane dicarboxylic acid, di-isononyl ester
Molecular Formula:	C <sub>26</sub> H <sub>48</sub> O <sub>4</sub>
Molecular Weight via GPC, Mn:	424.7 g/mol
Product Use:	Plasticizer
CAS No:	474919-59-0

For emergency health, safety, and environmental information, calls 330-920-8023.

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300.

### 2. Hazard(s) Identification

<u>Eye Contact:</u>	May cause irritation.
<u>Skin Contact:</u>	Prolonged or repeated contact may cause mild skin irritation.
<u>Ingestion:</u>	May cause gastric disturbances.
<u>Inhalation:</u>	May cause respiratory irritation.
<u>HMIS Hazard Ratings:</u>	Health- 1,      Flammability - 1,      Reactivity -0
<u>HMIS limitation statement:</u>	The HMIS hazard ratings numbers are meant to give a quick indication of the relative hazards associated with the product. All of the information contained in the SDS should be consulted to assist with the safe handling of this material.

### 3. Composition / Information on Ingredients

Weight Percent	Component Identity	CAS Number
>99%	1,2-Cyclohexanedicarboxylic acid, dinonyl ester, branched and linear	474919-59-0

### 4. First Aid Measures

HB Chemical 1665 Enterprise Parkway Twinsburg, Ohio 44087

Phone 330-920-8023 Fax 330-920-0971

[www.hbchemical.com](http://www.hbchemical.com)

<u>Inhalation:</u>	Keep patient calm, remove to fresh air. If breathing difficulties develop, aid in breathing and seek immediate medical attention.
<u>Eyes:</u>	Wash affected eyes for at least 15 minutes under running water with eyelids held open.
<u>Skin:</u>	Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.
<u>Ingestion:</u>	Rinse mouth immediately and then drink plenty of water, seek medical attention.

### **5. Fire-Fighting Measures**

<u>Suitable Extinguishing Media:</u>	Carbon dioxide, dry powder, water spray, foam.
<u>Special Fire Fighting Procedures:</u>	The product is combustible. Cool endangered containers with water-spray. Firefighters should be equipped with self-contained breathing apparatus and turn-out gear. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.
<u>Unusual fire and explosion hazards:</u>	The product is combustible. Cool endangered containers with water-spray.

### **6. Accidental Release Measures**

<u>Steps to be taken in case material is spilled:</u>	Handle in accordance with good industrial hygiene and safety practice. For small amounts: Spills should be contained, solidified, and placed in suitable containers for disposal. For large amounts: Pump off product. Wear appropriate personal protective equipment.
<u>Environmental Disposal Information:</u>	Discharge into the environment must be avoided.
<u>Waste Disposal:</u>	Reclaim or dispose of in accordance with local, state, and federal regulations.

### **7. Handling and Storage:**

<u>Precautions to be taken in handling:</u>	Ensure thorough ventilation of stores and work areas.
<u>Storage:</u>	Containers should be stored tightly sealed in a dry place. Segregate from strong oxidizing agents.

### **8. Exposure Controls / Personal Protection**

<u>Respiratory Protection:</u>	Wear a NIOSH-certified (or equivalent) organic vapor respirator. Avoid inhalation of mists/vapors.
<u>Hand protection:</u>	Wear chemical resistant protective gloves.
<u>Eye Protection:</u>	Wear safety glasses with side-shields.
<u>Skin and Body Protection:</u>	Wear impervious clothing.
<u>Other Precautions:</u>	Handle in accordance with good industrial hygiene and safety practice. Avoid inhalation of mists. Avoid contact with the skin, eyes and clothing.
<u>Decontamination Facilities:</u>	Eye bath, washing facilities (sinks / showers).

### **9. Physical and Chemical Properties**

<u>Physical Form:</u>	Liquid
<u>Appearance &amp; Odor:</u>	colorless/slight odor- Mild
<u>Specific Gravity:</u>	0.942 - 0.952 @ 25°C
<u>Solubility in Water:</u>	< 0.02 mg/l, soluble
<u>Flash Point, TAG CC F:</u>	224°C
<u>Refractive index:</u>	1.4622
<u>Self-ignition temperature:</u>	20 °C
<u>Viscosity, dynamic:</u>	44 - 60 mPa.s
<u>Partitioning coefficient noctanol/water (log Pow):</u>	10
<u>Vapor Pressure (mm Hg):</u>	< 0.000001 hPa
<u>Vapor Density (Air ~ 1):</u>	0.944 - 0.954g/cm3
<u>Boiling Point (°F) Initial:</u>	394 °C
<u>Auto ignition Temperature, °C:</u>	330 °C

### **10. Stability and Reactivity**

<u>Stability:</u>	This product is stable under normal conditions.
<u>Incompatibility (Materials to Avoid):</u>	Material reacts with strong oxidizing agents.
<u>Conditions to Avoid:</u>	Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme heat.
<u>Hazardous Polymerization:</u>	Hazardous polymerization will not occur.

<u>Thermal decomposition:</u>	When exposed to high temperatures over a long period of time, formation of outgassing flammable decomposition products may occur.
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## 11. Toxicological Information

This material is not listed as a carcinogen or potential carcinogen by NTP, IARC, or OSHA.

<u>Oral:</u>	LD50, Species: rat, Value: > 5,000 mg/kg (OECD Guideline 423)
<u>Dermal:</u>	LD50, Species: rat, Value: > 2,000 mg/kg (OECD Guideline 402)
<u>Assessment of STOT single:</u>	Based on the available information there is no specific target organ toxicity to be expected after a single exposure.
<u>Irritation / corrosion:</u>	May cause slight irritation to the skin. Not irritating to the eyes.
<u>Skin:</u>	Species:rabbit, Result:non-irritant, Method: OECD Guideline 404
<u>Eye:</u>	Species: rabbit,Result:non-irritant, Method: OECD Guideline 405
<u>Assessment of sensitization:</u>	Skin sensitizing effects were not observed in animal studies. Guinea pig maximization test, Species: guinea pig, Result: Non-sensitizing., Method: OECD Guideline 406.
<u>Assessment of acute toxicity:</u>	Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.
<u>Repeated dose toxicity:</u>	Effects on the kidney of male rats were detected after repeated exposure. These effects are specific for the male rat and are known to be of no relevance to humans.
<u>Assessment of mutagenicity:</u>	No mutagenic effect was found in various tests with bacteria, microorganism and mammalian cell culture. The substance was not mutagenic in studies with mammals.
<u>Carcinogenicity:</u>	In long-term animal studies in which the substance was given in high concentrations by feed, a carcinogenic effect was not observed.
<u>Reproductive toxicity:</u>	The results of animal studies gave no indication of a fertility impairing effect.
<u>Teratogenicity:</u>	No indications of a developmental toxic / teratogenic effect were seen in animal studies.

## 12. Ecological Information

This material has not been evaluated for environmental effects.

<u>Aquatic toxicity:</u>	There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.
<u>Toxicity to fish:</u>	LC50 (96 h) > 100 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 84/449/EEC, C.1, static) Tested above maximum solubility. The details of the toxic effect relate to the nominal concentration.
<u>Aquatic invertebrates:</u>	EC50 (48 h) > 100 mg/l, Daphnia magna (OECD Guideline 202, part 1, static) The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An eluate has been tested.
<u>Aquatic plants:</u>	EC50 (72 h) > 100 mg/l (growth rate), Scenedesmus subspicatus (OECD Guideline 201, static) The details of the toxic effect relate to the nominal concentration. The product has low solubility in the test medium. An eluate has been tested.
<u>Chronic toxicity to aquatic invertebrates:</u>	No observed effect concentration (21 d) >= 0.021 mg/l, Daphnia magna (OECD Guideline 211, semistatic) The product has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested. Limit concentration test only (LIMIT test).
<u>Toxicity to soil dwelling organisms:</u>	LC50 (14 d) > 1,000 mg/kg, Eisenia foetida (OECD Guideline 207, artificial soil) The details of the toxic effect relate to the nominal concentration.
<u>Toxicity to terrestrial plants:</u>	No observed effect concentration (20 d) > 1.000 mg/kg, Avena sativa (OECD Guideline 208). No observed effect concentration (21 d) > 1.000 mg/kg, Brassica napus (OECD Guideline 208). No observed effect concentration (21 d) > 1.000 mg/kg, Vicia sativa (OECD Guideline 208).
<u>Toxicity to microorganisms:</u>	DIN EN ISO 8192-OECD 209-88/302/EEC, P. C aquatic aerobic bacteria from a domestic water treatment plant/EC20 (180 min): > 1,000 mg/l.
<u>Assessment biodegradation and elimination (H2O):</u>	Biodegradable. Not readily biodegradable (by OECD criteria).
<u>Elimination information:</u>	90 - 100 % CO2 formation relative to the theoretical value (60 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic, activated sludge, domestic, non-adapted). 70 - 80 % CO2 formation relative to the theoretical value (28 d) (OECD 301B; ISO 9439; 92/69/EEC, C.4-C) (aerobic, activated sludge, domestic, adapted).
<u>Bioconcentration factor:</u>	189 (30 d), Brachydanio rerio (OECD Guideline 305 E) Accumulation in organisms is not to be expected.

Mobility in soil:

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

**13. Disposal Considerations**

Reclaim or Dispose of material in accordance with all applicable local, state, and federal regulations.

Waste disposal of substance:

Dispose of in a licensed facility. Do not discharge substance/product into sewer system. Dispose of in accordance with national, state and local regulations.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

**14. Transport Information**

D.O.T. Shipping Name:

Not classified as a dangerous good under transport regulations.

Air - ICAO (international Civil Aviation Organization):

Not classified as a dangerous good under transport regulations.

Sea - IMDG (International Maritime Dangerous Goods):

Not classified as a dangerous good under transport regulations.

**15. Regulatory Information**

All components of this material are on the TSCA Inventory.

All components of this material are on the Canadian DSL.

New Jersey RTK Label Information:

1,2-Cyclohexanedicarboxylic acid, dinonyl ester, branched and linear, CAS No.474919-59-0

Pennsylvania RTK Label Information:

1,2-Cyclohexanedicarboxylic acid, dinonyl ester, branched and linear, CAS No.474919-59-0

**16. Other Information**

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the users responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.