

1. PRODUCT NAME: Diisononyl Phthalate

2. CHEMICAL NAME: Diisononyl Phthalate

3. SYNONYMS:

4. CAS NUMBER: 28553-12-0

5. PROPERTIES: ODOR & APPEARANCE: clear, colorless, vis-  
cous, odorless liquid  
ODOR THRESHOLD: not known  
VAPOUR PRESSURE:  $5.4 \times 10^{-7}$  mmHg/ $0.7 \times 10^{-7}$  kPa (20 c)  
EVAPORATION RATE (butyl Acetate=1): not known  
VAPOR DENSITY (air=1): ~14(theoretical, DINP is not volatile)  
BOILING RANGE: ~250 c/~480 F (at 0.7kPa/5mmHg – very reduced pressure)  
FREEZING POINT: -43 c/-48 F  
SPECIFIC GRAVITY: 0.975 (20/20 c)  
WATER SOLUBILITY: 0.2 milligrams pre litre (20 c)  
IN OTHER SOLVENTS: soluble in acetone  
VISCOSITY: not known – estimated as 80-90centipoise (25 c)  
PH: none-(does not liberate hydrogen ions when dissolved)

6. HAZARDS: 1,2-benzenedicarboxylic acid, diisononyl ester - 100%

7. FIRE FIGHTING MEASURES: FLASH PONT: 221 c/430 F (closed cup)  
AUTOIGNITION TEMPERATURE: 380 c/716 F  
FLAMMABLE LIMITS: 0.4%-2.9%  
COMBUSTION PRODUCTS: carbon monoxide, nitrogen oxides, smoke, part oxidized hydrocarbon fragments  
FIRE FIGHTING PROCAUTIONS: foam, dry chemical, water fog, water spray only to cool & dilute, product floats on water – water jet spreads lames; fire fighters must wear SCBA.  
STATIC DISCHARGE: may accumulate a static charge – high viscosity make static charge development unlikely  
MECHANICAL IMPACT: not sensitive  
CHEMICAL STABILITY: strong oxidizing agents; hydrolyses in strong acids or alkalies  
DECOMPOSITION PRODUCTS: none apart from Hazardous Combustion products.

8. PERSONAL PROTECTION MEASURES: HANDS: neoprene, butyl or nitrile gloves may be worn – consult supplier to conform suitability  
EYES: safety glasses with side shields or chemical goggles – always protect the eyes  
VENTILATION: not required  
CLOTHING: no special protective clothing required  
CLEAN WATER ACT REQUIREMENTS: Toxic pollutant designated pursuant to section 307 (a)(1) of the clean water act and is subject to effluent limitations. /Phthalate esters/  
TSCA REQUIREMENTS: EPA promulgated a model Health and Safety data reporting rule. The section 8(d) model rule requires manufactures, importers, and processors of listed chemical substances and mixtures to submit to EPA copies and lists of unpublished health and safety studies. 1,2-Benzenedicarboxylic acid, diisononyl ester is included on this list.

9. FIRST AID PROCEDURES: SKIN: Wash with soap and plenty of water. Remove contaminated clothing and do not reuse until thoroughly cleaned or laundered.  
EYES: Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there

IN CASE OF  
TRANSPORT EMERGENCY  
CONTACT CHEMTREC  
USA: 1-800-424-9300  
INTERNATIONAL: 1-703-527-3887



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is irritation.

**INHALATION:** Remove from contaminated area promptly. **CAUTION:** Rescuer must not endanger himself! If breathing stops, administer artificial respiration and seek medical aid promptly.

**INGESTION:** Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, lower victim's head below hips to prevent inhalation of vomited material. Seek medical help promptly.

**NOTE:** Inadvertent inhalation of vomited material may seriously damage the lungs. The risk and danger of this is greater than the risk of poisoning through absorption of this relatively low-toxicity product. The stomach should only be emptied under medical supervision, after the installation of an airway to protect the lungs.

10. EXPOSURE TWAEV/TLV ppm/mg/m 3: no listed

LIMITS: LD50 ORAL: 11,250

SKIN (mg/kg): not known

LC50 ppm INHALATION: not known

11. TOXICOLOGICAL EFFECTS ACUTE EXPOSURE

INFORMATION: SKIN CONTACT: little to no effect

SKIN ABSORPTION: slight; no toxic effect likely by this route

EYE CONTACT: slightly irritating, will not damage eyes

INHALATION: low vapour pressure & high viscosity greatly reduces inhalation risk (vapour or mist

INGESTION: may cause stomach discomfort & diarrhoea – bitter taste discourages ingestion.

EFFECTS OF CHRONIC EXPOSURE

GENERAL: very low toxic product; prolonged exposure may cause skin cracking and dermatitis

SENSITISING: not a sensitiser

CARCINOGENIC: carcinogen in rodents; \*however, high dose required indicates this is irrelevant to either industrial or consumer exposure-hence not listed as carcinogenic

REPRODUCTIVE EFFECT: no known effect in humans-fetotoxic effect in rodents required ingestion of 0.2%-0.8% of body weight daily (20,000/kg-80,000mg/kg), an extremely high dose!

SYNERGISTIC WITH: not known

LD50: above 11,250mg/kg (oral, rat)

LC50: not known.

12. ECOLOGICAL NE

INFORMATION:

13. DISPOSAL Follow applicable laws and regulations.

CONSIDERATIONS:

14. CARCINOGENIC carcinogen in rodents; \*however, high dose required indicates this is irrelevant to either industrial or consumer exposure-hence not listed as carcinogenic

PROPERTIES & NOTIFICATIONS:

15. TRANSPORT Not Regulated by the DOT.

INFORMATION:

16. HANDLING & STORAGE: Store in a cool, dry environment, away from sources of ignition, heat and oxidizing agents. Do not cut, drill, weld or grind on or near this container. Avoid prolonged contact with skin and wash work clothes frequently. An eye bath and safety shower should be available near the workplace.



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17. ACCIDENTAL LEAK PRECAUTION: dyke to control spillage and prevent environmental contamination  
RELEASE HANDLING SPILL: ventilate contaminated area; recover free liquid with suitable pumps; absorb residue  
MEASURES: on an inert sorbent, sweep, shovel, & store in closed containers for recycling or disposal.  
WASTE DISPOSAL: DO NOT FLUSH IN SEWER; mix with flammable product and incinerate in approved facility  
ENVIROINFO: this product cannot accumulate in living tissue, this product is readily and rapidly biodegradable in the presence of oxygen.