

**Trade name:** Diisononylphthalat (DINP)**Current version :** 4.0.1, issued: 12.11.2021**Replaced version:** 4.0.0, issued: 03.05.2018**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name****Diisononylphthalat (DINP)**

Substance name di-isononyl phthalate  
REACH registration no. 01-2119430798-28-XXXX

**Identification numbers**

CAS no. 28553-12-0  
EC no. 249-079-5

**1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified uses of the substance or mixture**

Plasticizer

**Uses advised against**

None known

**1.3 Details of the supplier of the safety data sheet****Address**

LIQUICHEM Handelsgesellschaft mbH  
Kajen 6 – 8  
D-20459 Hamburg

Telephone no. 040 89 97 89 0  
Fax no. 040 89 97 89 9  
e-mail hamburg@liquichem.de

**Advice on Safety Data Sheet**

sdb\_info@umco.de

**1.4 Emergency telephone number**

For medical advice (in German and English):  
+49 (0)551 192 40 (Giftinformationszentrum Nord)

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification information**

This product does not meet the classification and labelling criteria given in the Regulation (EC) No 1272/2008 (CLP).

**2.2 Label elements**

Not relevant

**2.3 Other hazards**

No data available.

**SECTION 3: Composition/information on ingredients****3.1 Substances****Chemical characterization**

Substance name di-isononyl phthalate

**Identification numbers**

CAS no. 28553-12-0  
EC no. 249-079-5

**3.2 Mixtures**

Not applicable. The product is not a mixture.

**SECTION 4: First aid measures**

**Trade name:** Diisononylphthalat (DINP)**Current version :** 4.0.1, issued: 12.11.2021**Replaced version:** 4.0.0, issued: 03.05.2018**Region:** GB

#### 4.1 Description of first aid measures

**General information**

In case of persisting adverse effects, consult a physician. Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

**After inhalation**

Remove affected person from the immediate area. Ensure supply of fresh air.

**After skin contact**

In case of contact with skin wash off immediately with soap and water.

**After eye contact**

Separate eyelids, wash the eyes thoroughly with water (15 min.). Seek medical assistance.

**After ingestion**

Rinse out mouth and give plenty of water to drink. Never give anything by mouth to an unconscious person.

#### 4.2 Most important symptoms and effects, both acute and delayed

No data available.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media**

Extinguishing measures to suit surroundings.

**Unsuitable extinguishing media**

High power water jet

#### 5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon dioxide (CO<sub>2</sub>); Carbon monoxide (CO); Combustion products of this material have to be classed invariably as respiratory poison.

#### 5.3 Advice for firefighters

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations. Use self-contained breathing apparatus. Wear protective clothing.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8. Avoid contact with skin, eyes and clothing. Do not inhale vapours.

**For emergency responders**

No data available. Personal protective equipment (PPE) - see Section 8.

#### 6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

#### 6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g., sand, sawdust, general-purpose binder). When collected, handle material as described under the section heading "Disposal considerations".

#### 6.4 Reference to other sections

No data available.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

**Advice on safe handling**

Trade name: Diisononylphthalat (DINP)

Current version : 4.0.1, issued: 12.11.2021

Replaced version: 4.0.0, issued: 03.05.2018

Region: GB

Provide good ventilation at the work area (local exhaust ventilation, if necessary). Avoid eye, skin and clothing contact.

**General protective and hygiene measures**

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Avoid contact with eyes and skin. Remove soiled or soaked clothing immediately.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - refrain from smoking.

**7.2 Conditions for safe storage, including any incompatibilities****Technical measures and storage conditions**

Keep container tightly closed in a cool, well-ventilated place.

**Requirements for storage rooms and vessels**

Containers which are opened must be carefully closed and kept upright to prevent leakage. Always keep in containers of same material as the original.

**Incompatible products**

Do not store together with: oxidizing agents

**7.3 Specific end use(s)**

No data available.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Occupational exposure limit values**

No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
<b>List of approved workplace exposure limits (WELs) / EH40</b>			
Diisononyl phthalate			
	WEL long-term (8-hr TWA reference period)	5	mg/m <sup>3</sup>

**DNEL, DMEL and PNEC values****DNEL values (worker)**

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	di-isononyl phthalate			28553-12-0 249-079-5	
	dermal	Long term (chronic)	systemic	366	mg/kg/day
	inhalative	Long term (chronic)	systemic	51.72	mg/m <sup>3</sup>

**DNEL value (consumer)**

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	di-isononyl phthalate			28553-12-0 249-079-5	
	oral	Long term (chronic)	systemic	4.4	mg/kg/day
	dermal	Long term (chronic)	systemic	220	mg/kg/day
	inhalative	Long term (chronic)	systemic	15.3	mg/m <sup>3</sup>

**PNEC values**

No	Substance name		CAS / EC no	
	ecological compartment	Type	Value	
1	di-isononyl phthalate		28553-12-0 249-079-5	
	soil	-	30	mg/kg dry weight
	secondary poisoning with reference to: food	-	150000	g/kg

**Trade name:** Diisononylphthalat (DINP)

**Current version :** 4.0.1, issued: 12.11.2021

**Replaced version:** 4.0.0, issued: 03.05.2018

**Region:** GB

## 8.2 Exposure controls

### Appropriate engineering controls

No data available.

### Personal protective equipment

#### Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

#### Eye / face protection

Tightly fitting safety glasses (EN 166).

#### Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific workstation suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

#### Other

Normal chemical work clothing.

#### Environmental exposure controls

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>State of aggregation</b>	
liquid	
<b>Form/Colour</b>	
liquid	
colourless	
<b>Odour</b>	
odourless	
<b>pH value</b>	
No data available	
<b>Boiling point / boiling range</b>	
Value	235 °C
<b>Melting point/freezing point</b>	
Value	-49 °C
<b>Decomposition temperature</b>	
No data available	
<b>Flash point</b>	
Value	240 °C
<b>Ignition temperature</b>	
Value	350 °C
<b>Explosive properties</b>	
This product is not explosive. Formation of explosive / highly flammable vapour-air mixtures is possible through use.	
<b>Flammability</b>	
No data available	
<b>Lower explosion limit</b>	
Value	0.4 % vol

Trade name: Diisononylphthalat (DINP)

Current version : 4.0.1, issued: 12.11.2021

Replaced version: 4.0.0, issued: 03.05.2018

Region: GB

Upper explosion limit			
Value	2.9	% vol	
Vapour pressure			
Value	<	0.001	hPa
Reference temperature		20	°C
Relative vapour density			
No data available			
Relative density			
No data available			
Density			
Value	0.965	g/cm <sup>3</sup>	
Reference temperature	20	°C	
Solubility in water			
Value	<	0.1	g/l
Solubility			
No data available			
Partition coefficient n-octanol/water (log value)			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
log Pow	8.8	-	9.7
Reference temperature			25 °C
Method	OECD 107		
Source	ECHA		
Viscosity			
Value	72	-	82 mPa*s
Reference temperature		20	°C
Type	dynamic		
Particle characteristics			
No data available			

## 9.2 Other information

Other information
No data available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available.

### 10.2 Chemical stability

No data available.

### 10.3 Possibility of hazardous reactions

No data available.

### 10.4 Conditions to avoid

None known

### 10.5 Incompatible materials

Oxidizing agents

### 10.6 Hazardous decomposition products

None, if handled according to intended use.

## SECTION 11: Toxicological information

Trade name: Diisononylphthalat (DINP)

Current version : 4.0.1, issued: 12.11.2021

Replaced version: 4.0.0, issued: 03.05.2018

Region: GB

## 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
LD50	>	10000	mg/kg bodyweight
Species	rat		
Method	OECD 401		
Source	ECHA		

Acute dermal toxicity			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
LD50	>	3160	mg/kg bodyweight
Species	rabbit		
Source	ECHA		

Acute inhalational toxicity			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
LC50	>	4.4	mg/l
Duration of exposure		4	h
State of aggregation	mist		
Species	rat		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Skin corrosion/irritation			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
Species	rabbit		
Method	OECD 404		
Source	ECHA		
Evaluation	low-irritant		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Serious eye damage/irritation			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	non-irritant		

Respiratory or skin sensitisation			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
Route of exposure	respiratory tract		
Species	mouse		
Source	ECHA		
Evaluation	non-sensitizing		
Route of exposure	Skin		
Species	guinea pig		
Method	440/2008/EC B.6		
Source	ECHA		
Evaluation	non-sensitizing		

Germ cell mutagenicity			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Trade name: Diisononylphthalat (DINP)

Current version : 4.0.1, issued: 12.11.2021

Replaced version: 4.0.0, issued: 03.05.2018

Region: GB

Reproduction toxicity			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
Species		rat	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	

Carcinogenicity			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
Species		rat	
Method		EPA OTS 798.3300	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	

STOT - single exposure			
No data available			

STOT - repeated exposure			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
Route of exposure		oral	
Species		rat	
Method		OECD 452	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Route of exposure		inhalational	
Species		rat	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	
Route of exposure		dermal	
Species		rabbit	
Source		ECHA	
Evaluation/classification		Based on available data, the classification criteria are not met.	

Aspiration hazard			
No data available			

## 11.2 Information on other hazards

### Endocrine disrupting properties

No data available.

### Other information

Exercise customary precautions when handling chemicals.

## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
LC50		>	102 mg/l
Duration of exposure			96 h
Species		Danio rerio	
Method		440/2008/EC C.1.	
Source		ECHA	

Toxicity to fish (chronic)			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
NOEC		>= 18.5	- 24.5 mg/l

Trade name: Diisononylphthalat (DINP)

Current version : 4.0.1, issued: 12.11.2021

Replaced version: 4.0.0, issued: 03.05.2018

Region: GB

Duration of exposure	284	day(s)
Species	Oryzias latipes	
Method	OECD 210	
Source	ECHA	

Toxicity to Daphnia (acute)			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
EC50	>	74	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Method	440/2008/EC C.2.		
Source	ECHA		

Toxicity to Daphnia (chronic)			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
NOEC	>	101	mg/l
Duration of exposure		21	day(s)
Species	Daphnia magna		
Method	OECD 202		
Source	ECHA		

Toxicity to algae (acute)			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
EC50	>	88	mg/l
Duration of exposure		72	h
Species	Desmodesmus subspicatus		
Method	440/2008/EC C.3.		
Source	ECHA		

Toxicity to algae (chronic)			
No data available			

Bacteria toxicity			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
EC50	>	83.9	mg/l
Duration of exposure		30	min
Species	activated sludge		
Method	OECD 209		
Source	ECHA		

## 12.2 Persistence and degradability

Biodegradability			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
Type	aerobic biodegradation		
Value		81	%
Duration		28	d
Method	92/69/EEC, C.4-C		
Source	ECHA		
Evaluation	readily biodegradable		

## 12.3 Bioaccumulative potential

Bioconcentration factor (BCF)			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
BCF	<	3	
Species	Oncorhynchus mykiss		
Source	ECHA		



Trade name: Diisononylphthalat (DINP)

Current version : 4.0.1, issued: 12.11.2021

Replaced version: 4.0.0, issued: 03.05.2018

Region: GB

Partition coefficient n-octanol/water (log value)			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
log Pow		8.8	- 9.7
Reference temperature			25 °C
Method		OECD 107	
Source		ECHA	

**12.4 Mobility in soil**

Mobility in soil			
No	Substance name	CAS no.	EC no.
1	di-isononyl phthalate	28553-12-0	249-079-5
log Koc			6
Method		QSAR	
Source		ECHA	

**12.5 Results of PBT and vPvB assessment**

No data available.

**12.6 Endocrine disrupting properties**

No data available.

**12.7 Other adverse effects**

No data available.

**12.8 Other information**

Other information
Do not discharge product unmonitored into the environment.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

**Packaging**

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

**SECTION 14: Transport information****14.1 Transport ADR/RID/ADN**

The product is not subject to ADR/RID/ADN regulations.

**14.2 Transport IMDG**

The product is not subject to IMDG regulations.

**14.3 Transport ICAO-TI / IATA**

The product is not subject to ICAO-TI / IATA regulations.

**14.4 Other information**

No data available.

**14.5 Environmental hazards**

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

**14.6 Special precautions for user**

No data available.

**14.7 Maritime transport in bulk according to IMO instruments**

Not relevant

**Trade name:** Diisononylphthalat (DINP)

**Current version :** 4.0.1, issued: 12.11.2021

**Replaced version:** 4.0.0, issued: 03.05.2018

**Region:** GB

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

**Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

In accordance with the REACH regulation (EC) 1907/2006, the product does not contain any substances that are considered as subject to listing in annex XIV, inventory of substances requiring authorisation.

**REACH candidate list of substances of very high concern (SVHC) for authorisation**

In accordance with article 57 and article 59 of the Reach regulation (EC) 1907/2006, this substance is not considered as subject to listing in annex XIV, inventory of substances requiring authorisation ("Authorization list").

**Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES**

The substance is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.

No	Substance name	CAS no.	EC no.	No
1	di-isononyl phthalate	28553-12-0	249-079-5	52

**Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances**

This substance is not subject to Part 1 or 2 of Annex I

### 15.2 Chemical safety assessment

No data available.

## SECTION 16: Other information

**Sources of key data used to compile the data sheet:**

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

**Creation of the safety data sheet**

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

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