

# Safety data sheet

# UPC Technology Corporation


ZHEN JIANG PLANT

Version : 2023.01.01

## 1. Chemicals Identification

Chemicals Name: DINA (Di-isononyl Adipate)
<i>Other Names:</i> —
Recommended use and restrictions on use: Cold-resistant plasticizer ; Plasticizer for food packaging materials (similar to DOA).
<i>Names, addresses, and phone numbers of the manufacturer or supplier:</i> ZHENJIANG UNION CHEMICAL INDUSTRY CO.LTD Addresses: NO.57 Lin Jiang West Road, Dagang,Zhenjiang New District,Jiangsu 212006, China Phone number: (86)-511-8336-2688 ; FAX(86)-511-8336-2700
Emergency contact phone numbers/fax numbers: Phone number: (886)-7-6413501 ; (886)-939-336-730 ; (886)-911-600-286 ; (886)-958-215-036 Fax number: (886)-7-6421087

## 2. Hazard(s) identification

Chemicals hazard classification : <ul style="list-style-type: none"><li>◆ Acute toxicity (oral), category 5 ;</li><li>◆ Skin corrosion/irritation, category 3, mild irritant ;</li><li>◆ Serious eye damage/eye irritation, category 2B, mild irritant ;</li><li>◆ Chronic hazards to the aquatic environment, category 3</li></ul>
Labelling elements:  Signal word : WARNING Hazard statements : <ul style="list-style-type: none"><li>◆ May be harmful if swallowed ;</li><li>◆ Causes mild skin irritation ;</li><li>◆ Causes eye irritation</li><li>◆ Harmful to aquatic life with long lasting effects</li></ul>

Precautionary statements :

- ◆ Do not eat or drink when using this material ;
- ◆ Wear eye mask/ face mask ;
- ◆ If the material contact with eyes, immediately flush affected eyes with plenty of water and get medical attention ;
- ◆ Avoid release this material into the environment

Other hazards: —

### 3. Composition/information on ingredients

Substance:

Common name : Di-isononyl Adipate (DINA)

Synonyms: Adipic acid, diisononyl ester ; Hexanedioic acid, diisononyl ester

Chemical Abstract Service (CAS) Registry Number: 33703-08-1

The hazardous ingredient (% of the content): 99.5% W/W

### 4. First-aid measuresForm :

The first-aid instructions by relevant routes of exposure:

Inhalation:

- (1) Remove the patient to fresh air.
- (2) Give respirator and medication if necessary.
- (3) Keep patient warm and comfortable.

Skin contact:

- (1) Remove contaminated clothing.
- (2) Flush affected areas with water and soap.

Eye contact:

- (1) Immediately flush affected eyes with plenty of water for at least 15 minutes and hold eyelids apart while washing.

Ingestion:

- (1) Give enough warm water to drink. Induce vomiting.
- (2) Get medical attention immediately.

The most important symptoms and hazardous effects: May cause eye irritation. If ingested, may cause vomit and enterorrhea. Serious phenomenon is collapse.

The protection of first-aider: Wear impervious gloves to avoid contact with contaminants.

Notes to physicians: -

#### 5. Fire-fighting measures

Suitable extinguishing media: Foam, carbon dioxide, dry powder, water mist and sand.

Water is not suitable.

Specific hazards arising during fire-fighting:

- (1) Combustible on intense heating and open flames.
- (2) May react with oxidants.
- (3) May decompose and generate toxic gases on intense heating.
- (4) Increased pressure within containers may cause cracking and explosion on intense heating.

Specific fire-fighting methods:

- (1) Move the containers from the scene of fire to open place as possible.
- (2) Spray water to cool the containers exposed to fire until put out the fire.
- (3) Evacuate immediately when the containers discolor or generate sound from the safety relief valve.

Special protective equipment for firefighters:

Wear air breathing apparatus, turnouts and protective gloves.

#### 6. Accidental release measures

Personal precautions:

- (1) Evacuate the contaminated area of people till clearing up the spilled area.
- (2) Make sure the clearing procedures are executed by properly trained people.
- (3) Wear appropriate personal protective equipments.

Environmental precautions: -

Methods and materials for cleaning up: —

#### 7. Handling and storage

Handling:

Storage:

- (1) Store in a cool, dry and well-ventilated area. Avoid sunning.
- (2) Keep away from heat source and ignition source.
- (3) Keep containers tightly closed.
- (4) Keep separate from oxidants. Avoid mixing storage.
- (5) Storage area should be equipped with sufficient and relevant types of fire fighting equipments, emergency response equipments for leakage and suitable absorption materials.

#### 8. Exposure controls/personal protection

<p>Engineering control:</p> <p>(1) Local exhaust ventilation.</p> <p>(2) Use isolated process or apart from other ventilation systems and discharge the exhaust gas to outside directly.</p> <p>(3) Supply sufficient fresh air to replenish the air exhausted by the exhauster.</p>			
Control parameters:			
8 hours time weighted average exposure TWA	limits/Short-term exposure STEL	limits/maximum exposure CEILING	limits biological standards: BEIs
—	—	—	—
<p>Personal protective equipment:</p> <p><u>Respiratory protection:</u></p> <p>(1) <u>Pressure-demand or positive-pressure full-face supplied-air respirator with an auxiliary pressure-demand or positive-pressure air breathing apparatus (self-contained breathing apparatus).</u></p> <p>(2) <u>Pressure-demand or positive-pressure full-face air breathing apparatus (self-contained breathing apparatus).</u></p> <p><u>Hand protection: Impervious gloves.</u></p> <p><u>Eye protection:</u></p> <p>(1) <u>Full-face mask.</u></p> <p>(2) <u>Splash-proof safety goggles.</u></p> <p>(3) <u>Do not wear contact lenses.</u></p> <p><u>Skin and body protection: Impervious protective clothing.</u></p>			
<p>Hygiene measures:</p> <p>(1) Remove contaminated clothing immediately after work. Launder clothing soaked or soiled with this material before reuse or discard. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.</p> <p>(2) No smoking, eating or drinking at working place.</p> <p>(3) Wash hands thoroughly after handling this material.</p> <p>(4) Keep working place clean.</p>			

9. Physical and chemical properties:

Appearance (physical state, color, etc) : Colorless liquid	Odor: almost no odor
Odor threshold: -	Melting point: -65°C
pH value: -	Boiling point / boiling point range: 235°C

Flammability (solid, gas): -	Flash point: 223°C Test method: DIN-ISO 2592
Decomposition temperature: -	
Auto-ignition temperature: 330°C	Explosion limits: Lower explosion limit: 1.8%(V) (179.5°C, 18.8 hPa) Upper explosion limit: 2.4%(V) (209.7°C, 24.6 hPa)
Vapor pressure: 1.02 X 10 <sup>-4</sup>	Vapor density: —
Density: 0.920g/cm <sup>3</sup> @25°C	Solubility: <0.01 @ 25°C
Partition coefficient (n-octanol/water, log Kow): 9.24 (estimated)	Evaporation rate: —

#### 10. Stability and reactivity

Stability: Stable under ordinary conditions of use and storage.
Possible hazardous reactions under specific conditions: —
Conditions to avoid : —
Materials to avoid : strong alkali
Hazardous decomposition products: CO, CO <sub>2</sub>

#### 11. Toxicological information

Routes of exposure: inhalation ; eye contact, skin contact
Symptoms: irritation
Acute toxicity: LD <sub>50</sub> (rat, oral) : >5,000 mg/kg LC <sub>50</sub> : —
Chronic toxicity or long-term toxicity: —

#### 12. Ecological information:

LC <sub>50</sub> (fish) : > 500 mg/l/96h (Leuciscus idus, fish, fresh water) EC <sub>50</sub> (invertebrate) : > 100 mg/l/48h (Daphnia magna) Bioconcentration factor (BCF) : —
Persistence and degradability: half-life time(air) : — half-life time(water surface) : — half-life time(groundwater) : — half-life time(soil) : —
Bioaccumulative potential: —

Mobility in soil: —
Other adverse effects: -

### 13. Disposal considerations

<p>Methods of waste disposal:</p> <p>(1) Use incineration method.</p> <p>(2) Use specific sanitary landfill method.</p>
---

### 14. Transport information

United Nations number (UN No): -
UN Proper shipping name: -
Transport hazard class: -
Packing group: -
Marine pollutant (Yes/No): -
Specific transport measures and precautionary conditions: -

### 15. Regulatory information

<p>Applicable regulations:</p> <p>(1) Occupational Safety and sanitation rules.</p> <p>(2) Labeling of hazardous chemicals and Liberal rule.</p> <p>(3) Traffic Regulation.</p> <p>(4) Method and Facility Standards for Industrial Waste Storage, Clearance, and Disposal.</p>
---

### 16. Other information

Literature references	(1) GHS Hazard Classification Tool, developed by Council Of Labor Affairs, Executive Yuan, Taiwan	
	(2) IUCLID Chemical Data Sheets	
Prepared by	Organization Name: UPC Technology Corporation (Linyuan Plant)	
	Address : 3, Kung-Yeh 2nd Rd., Lin-Yuan District, Kaohsiung 832, Taiwan	
	Phone number : (886)-7-6413501	
	Title: Senior Engineer	Name (signature): TODD.LIN
Date/Revised :	2017.09.22	Version : 1.2
Note	In the above-mentioned information, symbol "—" means data not available at present, and " / " means this item is not applicable for this product.	

The information contained in this safety data sheet is provided by UPC Technology Corporation in good faith as accurate. But UPC cannot guarantee to its comprehensiveness or accuracy. This document is provided for the purpose of communication of hazard and safety requirements. And it is

only as a guide to the appropriate precautionary handling of the product by properly trained persons. The clients are requested to advise those who may contact with this product of the safety data sheet information contained herein. Please note the data relates only to this product, and does not relate to any other mixtures of this product in combination with any other materials. Users should make their own investigations to determine the suitability of the information for their particular purposes, and ensure to comply with all applicable laws and regulations. No warranty is made, either expressed or implied in this safety data sheet. UPC will not be responsible for damage resulted from use of this safety data sheet information.