SAFETY DATA SHEET

This safety data sheet complies with the requirements of:
JIS Z 7253:2019

Revision date 10-Jul-2024
Revision Number 7

1. Identification

Product Name DINP

Safety data sheet number CGE-A-002

Registration Number(s) CGE-A-002

Details of the supplier of the safety data sheet

Manufacturer
CG ESTER CORPORATION
Shin Otemachi Bldg.,2-1,Otemachi 2-Chome,Chiyoda-ku,Tokyo 100-8105 Japan
TEL:+81-3-5203-2860 Fax:+81-5203-2864

Emergency telephone number +81-3-5203-2860

Recommended use of the chemical and restrictions on use

Recommended Use Plasticizer and solvent for various resins

Restrictions on use Please do not use for other than recommended use.

2. Hazard(s) identification

GHS Classification
Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Not classified
Acute toxicity - Dermal	Classification not possible
Acute toxicity - Inhalation (Gases)	Classification not possible
Skin corrosion/irritation	Not classified
Serious eye damage/eye irritation	Not classified
Respiratory sensitization	Classification not possible
Skin sensitization	Classification not possible
Germ cell mutagenicity	Not classified
Carcinogenicity	Classification not possible
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible
Acute aquatic toxicity	Not classified
Chronic aquatic toxicity	Not classified
Ozone	Classification not possible

GHS label elements
Does not apply

Hazard statements
Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Prevention
• Not applicable

Response
• Not applicable
Storage
• Not applicable
Disposal
• Not applicable

Other hazards

No information available.

3. Composition/information on Ingredients

Pure substance/mixture Substance

Common name diisononyl phthalate

Chemical formula C6H4(COOC9H19)2

Chemical name	CAS No.	Weight-%	ENCS Inventory	ENCS Number	ISHL Inventory	ISHL No.
Diisononyl phthalate	28553-12-0	>=99	Existing	(3)-1307	Existing	(3)-1307

4. First-aid measures

General advice Show this safety data sheet to the doctor in attendance.

In case of inhalation Move to a place with fresh air and rest in a comfortable posture. If you feel unwell, contact your doctor.

In case of skin contact Wash off immediately with soap and plenty of water. Consult a physician if necessary.

In case of eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Get medical attention if irritation develops and persists.

In case of ingestion Rinse mouth. Do NOT induce vomiting. Call a physician.

Most important symptoms/effects, acute and delayed No information available.

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Dry chemical or CO2. Foam. Dry sand.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the Incomplete combustion may generate toxic carbon monoxide gas.

chemical

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO2).

Special Extinguishing Media

Large Fire If it cannot be moved, sprinkle water on the container and its surroundings to cool it.

- Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions See Section 12 for additional Ecological Information.

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and Storage

Handling

Local and General Ventilation Perform local exhaust and general ventilation in item 8.

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Prevents Handling of Incompatible Substances or Mixtures See Section 10, Reactivity, Conditions to Avoid, Dangerous Goods to Touch.

Hygiene Measures Wash hands thoroughly after handling.

Storage

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Store away from oxidants.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

Engineering controls	Showers Eyewash stations Ventilation systems.
Environmental exposure controls	No information available.

Personal protective equipment

Respiratory protection	Use gas masks, air masks, air respirators, etc. for organic gas as needed.
Hand protection	Impervious gloves.
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Antistatic long-sleeve protective clothes and shoes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance		
Physical state	Liquid	
Color	colorless	
Odor	Almost odorless	

Property	**Values**	**Remarks • Method**
Melting point / freezing point	-45 °C	
Initial boiling point and boiling range	403 °C	
Flammability	When heated to high temperatures, combustible gas is produced by decomposition.	
Upper/lower flammability or explosive limits		
Upper flammability or explosive limits	2.9vol%	
Lower flammability or explosive limits	0.4vol%	
Flash point	235 °C	–
Evaporation rate	No data available	
Autoignition temperature	374 °C	
Decomposition temperature	No data available	
pH	No data available	
Viscosity		
Kinematic viscosity	78 mPa s	@ 20 °C
Dynamic viscosity	No data available	
Water solubility	Insoluble in water 0.0006 m g/L	@ 20 °C
Solubility(ies)	Soluble in Alcohol Ether	
Partition Coefficient (n-octanol/water)	8.8	
Vapor pressure	6×10^{-5} Pa	@ 20 °C
Density and/or relative density		
Relative density	0.976	@ 20 °C
Liquid Density	No data available	

Bulk density No data available
Relative vapor density 14.4
Particle characteristics
Particle Size
Particle Size Distribution

Other information

10. STABILITY AND REACTIVITY

Reactivity Stable.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Keep away from open flames, hot surfaces and sources of ignition.

Incompatible materials Strong oxidizing agents. Strong acids. Strong bases.

Hazardous decomposition products Carbon monoxide. Carbon dioxide (CO2).

Explosion data
Sensitivity to static discharge No information available.
Sensitivity to mechanical impact No information available.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Numerical measures of toxicity - Product Information
No information available

Numerical measures of toxicity - Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Diisononyl phthalate	> 10g/kg (Rat)	-	-

Abbreviations and acronyms
Rat: Rat
Rabbit: Rabbit

Symptoms No information available.

Product Information

Ingestion Not applicable. (based on components).

Inhalation Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin corrosion/irritation

Diisononyl phthalate (28553-12-0)

Hazard rationale information	In a skin irritation test (OECD TG 404, applied for 4 hours) using rabbits, very slight erythema (score 1) was observed after 24 hours but disappeared after 48 hours. Also in a test with a severe condition of 24-hour occlusive application, transient slight erythema and edema were observed but quickly disappeared, and the mean score was less than 1.0 (EU-RAR (2003) 、NICNAS (2012)). it was judged to be classified as "Not classified"

Serious eye damage/eye irritation

Diisononyl phthalate (28553-12-0)

Hazard rationale information	In an eye irritation test (OECD TG 405) using rabbits, , application of 0.5 mL of test substance caused slight to medium conjunctival redness (score 4.3) was observed after 1 hour, but was relieved after 24 hours (score 0.33) and disappeared thereafter. In addition, also in eye irritation tests (2 tests) using rabbits, transient conjunctival redness or discharge was observed, but disappeared after 48 hours (EU-RAR (2003), NICNAS (2012)). From these results, it was concluded that eye irritation was very slight, and it was classified as "Not classified."

Germ cell mutagenicity

Diisononyl phthalate (28553-12-0)

Hazard rationale information	The substance is negative from results of mutagenicity tests with microbes

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity

Diisononyl phthalate (28553-12-0)

Hazard rationale information	No effects at all were observed on the fertility or reproductive organogenesis of male and female pups when 1,000 mg/kg/day was administered to pregnant and lactating maternal rats.In a developmental toxicity study in pregnant rats during organogenesis by forced oral administration, an increase in skeletal abnormalities was observed in the fetus at 1,000 mg/kg/day where effects on the mother (suppressed body weight gain, decreased intake) were observed.This was not classified as a classification as it was considered highly likely that this was a non-specific change that developed as a result of secondary effects of maternal toxicity.

STOT - single exposure

Diisononyl phthalate (28553-12-0)

Hazard rationale information	Administrations of high concentration affect livers and kidneys of rats and mice. However, no effects have been observed in tests with primates.

Other adverse effects No activations were observed in estrogen activation tests in vivo (uterine hypertrophy reaction test with the ovariectomized rats).

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Crustacea
Diisononyl phthalate	-	LC50: >100mg/L (96h, Brachydanio rerio)	EC50: >500mg/L (48h, Daphnia magna)

Persistence and degradability Good degradability.

Diisononyl phthalate (28553-12-0)

Method	Exposure time	Value	Results
OECD Test No. 301C: Ready Biodegradability: Modified MITI Test (I) (TG 301 C)		BOD 74%	Readily biodegradable

Bioaccumulation It is no or low concentrative and does not bioaccumulate.

Component Information

Chemical name	Partition coefficient
Diisononyl phthalate 28553-12-0	8.8(BCF<14))

Mobility in soil No information available.

Hazardous to the ozone layer Classification not possible. Based on available data, the classification criteria are not met.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products
Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging
Do not reuse empty containers.

14. TRANSPORT INFORMATION

IMDG Not regulated

ADR Not regulated

IATA Not regulated

Japan Not regulated
Special precautions Make sure the container is not damaged, corroded, leaked, etc. before shipping.

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations
Pollutant Release and Transfer Register (PRTR)
Not applicable

Industrial Safety and Health Law

Harmful Substances Whose Names Are to be Indicated on the Label
Article 57-1 of ISHL, Article 18, Item 1, Item 2, Appended Table 9 and Item 3, Appended Table 3 of Order for Enforcement

Chemical name	Ministerial Ordinance Name	CAS No.	Content rate %	Implementation date
Diisononyl phthalate	Diisononyl phthalate	28553-12-0	100	2026-04-01

ISHL Notifiable Substances
Article 57-2 of the ISHL, Article 18-2, Item 1, Item 2, Appended Table 9 and Item 3, Appended Table 3 of Order for Enforcement

Chemical name	Ministerial Ordinance Name	CAS No.	Content rate %	Implementation date
Diisononyl phthalate	Diisononyl phthalate	28553-12-0	100	2026-04-01

Harmful substances requiring risk assessment
Article 57-3 of the ISHL

Poisonous and Deleterious Substances Control Law
Not applicable
Fire Service Law:
Flammable liquids, group 4, 4th class petroleums, hazard rank III, 6000 liters
Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (CSCL)

Chemical name	CAS No.	Chemical Substances Control Law
Diisononyl phthalate	28553-12-0	General chemical substance

Act on Prevention of Marine Pollution and Maritime Disaster
Subject to the Law Regarding the Prevention of Marine Pollution and Maritime Disaster and its Ordinance, Table 1- 2; category Y
Positive List of Food Contact Materials
The part of the toy consisting of plasticized materials stipulated in Article 78, Item 1 of the Enforcement Regulations of the Food Sanitation Law shall not contain more than 0.1% diisononyl phthalate. However, it is limited to the part whose essence is to come into contact with the mouth.
In addition, the portion made of a plasticized material of the toy stipulated in Article 78, Item 1 of the Enforcement Regulations of the Food Sanitation Law and other than the part whose essence is in contact with the mouth of the toy as defined above, and the portion consisting of plasticized materials of the toy stipulated in Article 78, Item 2 and Item 3 of the Enforcement Regulations of the Food Sanitation Law, the part of them that can be put in the mouth of an infant is diisononyl phthalate. It should not contain more than 0.1%.
Listed in Appendix 1, Table 2 (Additives) of Ministry of Health, Labour and Welfare Notification No. 324

International Regulations

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Included
KECI	Complies
AIIC	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals

16. Other Information

Revision date 10-Jul-2024
Revision Number 8
Revision Note

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	Sk*	Skin designation
+	Sensitizers		

Legend

IMDG	International Maritime Dangerous Goods (IMDG)	ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IATA	International Air Transport Association (IATA)		

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Chemicals Agency
European Food Safety Authority (EFSA)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine’s PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Disclaimer

This SDS complies with the requirements of JIS Z 7253:2019 (Japan). The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet