

## Safety Data Sheet

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### 1. Identification of the substance/mixture and of the company/undertaking

**Product identifier:**

Product name: Diethyl Phthalate

Reference number(SDS): 63216jis\_E-1

**Product type:**

Quasi-drug raw materials

※This product conform to JSQI (Japanese Standards of Quasi-drug Ingredients).

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

Relevant identified uses of the product: Denaturant, Fragrance, Plasticiser, Solvent

Uses advised against: Do not use for other purposes.

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

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.

Address: 1-6, Ohmano-cho, Koshigaya-shi, Saitama 343-0844, Japan

Division: Quality Assurance Department

Telephone number: +81-48-986-6161

FAX: +81-48-989-2787

e-mail address: shiyaku-t@junsei.co.jp

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### 2. Hazards identification

**GHS classification and label elements of the product****Classification of the substance or mixture****HEALTH HAZARDS**

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2B

Skin sensitization: Category 1

Specific target organ toxicity – single exposure: Category 3 (Respiratory tract irritation)

Specific target organ toxicity – single exposure: Category 3 (Narcosis)

**ENVIRONMENT HAZARDS**

Hazardous to the aquatic environment (Acute): Category 2

(Note) GHS classification without description: Not classified/Classification not possible

**Label elements**

Signal word: Warning

**HAZARD STATEMENT**

H315–Causes skin irritation

H320–Causes eye irritation

H317–May cause an allergic skin reaction

H335–May cause respiratory irritation

H336–May cause drowsiness or dizziness

H401–Toxic to aquatic life

**PRECAUTIONARY STATEMENT****Prevention**

Avoid release to the environment.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wash contaminated parts thoroughly after handling.  
Wear protective gloves.  
Contaminated work clothing should not be allowed out of the workplace.

**Response**

Call a POISON CENTER/doctor/physician if you feel unwell.  
**IF INHALED:** Remove person to fresh air and keep comfortable for breathing.  
**IF ON SKIN:** Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.

**Storage**

Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.

**Disposal**

Dispose of contents/container in accordance with local/national regulation.

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**3. Composition/information on ingredients****Mixture/Substance selection:****Substance**

Ingredient name: Diethyl phthalate  
Content (%): 99.0<  
Chemical formula: C<sub>12</sub>H<sub>14</sub>O<sub>4</sub>  
Chemicals No, Japan: 3-1301  
CAS No.: 84-66-2  
MW: 222.24  
ECNO: 201-550-6

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**4. First-aid measures****Descriptions of first-aid measures****General measures**

Call a POISON CENTER/doctor/physician if you feel unwell.

**IF INHALED**

Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER/doctor/physician if you feel unwell.

**IF ON SKIN (or hair)**

Take off immediately all contaminated clothing. Rinse skin with water or shower.  
Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/attention.

**IF IN EYES**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.

**IF SWALLOWED**

Rinse mouth.  
If victim is conscious, give 1 – 2 glasses of water.  
Call a POISON CENTER/doctor/physician if you feel unwell.

**Most important symptoms and effects, both acute and delayed**

(Symptoms when inhalation or ingestion)

Dizziness. Lethargy. Abdominal pain. Nausea.

## 5. Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media

In case of fire, use alcohol-resistant foam, dry powder, CO<sub>2</sub> to extinguish.

#### Unsuitable extinguishing media

Water may be effective for cooling, but may not effect extinguishment.

### Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

### Advice for firefighters

#### Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Cool container with water spray.

#### Special protective equipment and precautions for fire-fighters

Wear fire resistant or flame retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

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## 6. Accidental release measures

### Personnel precautions, protective equipment and emergency procedures

Ventilate area until material pick up is complete.

Wear proper protective equipment.

### Environmental precautions

Avoid release to headsprings, rivers, lakes, ocean and groundwater.

### Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

### Preventive measures for secondary accident

Collect spillage.

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## 7. Handling and storage

### Precautions for safe handling

#### Preventive measures

(Exposure Control for handling personnel)

Avoid breathing dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

#### Safety Measures

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

#### Any incompatibilities

Strong acids, Strong bases, Strong oxidizing agents should not be mixed with the chemicals.

**Advice on general occupational hygiene**

- Wash contaminated parts thoroughly after handling.
- Contaminated work clothing should not be allowed out of the workplace.
- Take off contaminated clothing and wash it before reuse.

**Storage****Conditions for safe storage**

- Store in a well-ventilated place. Keep container tightly closed.
- Keep cool. Protect from sunlight.
- Store in accordance with local/national regulation.
- Store locked up.

Container and packaging materials for safe handling data is not available.

**Specific end use(s)**

- See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

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**8. Exposure controls/personal protection****Control parameters**

Control value in MHLW is not available.

**Adopted value**

- JSOH(1995) 5mg/m<sup>3</sup>
- ACGIH(1999) TWA: 5mg/m<sup>3</sup> (URT irr)

**Exposure controls****Appropriate engineering controls**

- Do not use in areas without adequate ventilation.
- Eye wash station should be available.
- Washing facilities should be available.

**Individual protection measures****Respiratory protection**

- Wear respiratory protection.

**Hand protection**

- Wear protective gloves. Recommended material(s): butyl rubber, viton, PVC
- Consult with your glove and/or personnel equipment manufacturer for selection of appropriate compatible materials.

**Eye protection**

- Wear safety glasses with side-shields.
- Wear eye/face protection.

**Skin and body protection**

- Wear impervious clothing and boots in case of repeated or prolonged treatment.

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**9. Physical and Chemical Properties****Information on basic physical and chemical properties**

Physical state: Oily liquid

Color: Colorless

Odor: None or practically odorless

Odor threshold data is not available.

Melting point/Freezing point: -67~ -44°C

Boiling point or initial boiling point: 295°C

Boiling range data is not available.

Flammability (gases, liquids and solids): Ignitable

Lower and upper explosion limit/flammability limit:

- Lower explosion limit: 0.7 vol %

Flash point: (C.C.) 117°C

Auto-ignition temperature: 457°C

Decomposition temperature data is not available.

Self-Accelerating Decomposition Temperature/SADT data is not available.

pH data is not available.

Dynamic viscosity data is not available.

Kinematic viscosity: 11.53mm<sup>2</sup>/s(20°C)

Solubility:

Solubility in water: 1080 mg/L(25°C)

Solubility in solvent: Miscible with ethanol, diethyl ether.

n-Octanol/water partition coefficient: log Pow2.42

Vapor pressure: 0.28Pa(25°C)

Density and/or relative density: 1.12g/cm<sup>3</sup>(25°C)

Relative vapor density (Air=1): 7.7

Relative density of the Vapor/air - mixture at 20°C (Air = 1) data is not available.

Particle characteristics data is not available.

Other information

Critical temperature data is not available.

Evaporation rate data is not available.

VOC data is not available.

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## 10. Stability and Reactivity

Reactivity

Reactivity data is not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

Decomposes on heating and on burning. This produces toxic fumes and gases.

Attacks some plastics(e.g. Polychloroprene).

Conditions to avoid

Contact with incompatible materials.

Open flames. Heat.

Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents

Hazardous decomposition products

Carbon oxides, Phthalic anhydride.

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## 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

rat LD50=8600mg/kg(MOE risk assessment vol.3, 2004; NTP TR429, 1995)

Acute toxicity (Dermal)

[GHS Cat. Japan, base data]

rat LD50 >11200mg/kg(IUCLID, 2000)

Irritant properties

Skin corrosion/irritation

[GHS Cat. Japan, base data]

human : skin irritation (MOE risk assessment vol.3, 2004)

Serious eye damage/irritation

[GHS Cat. Japan, base data]

rabbit : mild irritation (NTP TR429, 1995)

## Sensitization

## Skin sensitization

[GHS Cat. Japan, base data]

cat. 1; CICAD 52, 2003

Mutagenic effects data is not available.

## Carcinogenicity

[ACGIH]

A4(1999) : Not Classifiable as a Human Carcinogen

[EPA]

Group D; Not classifiable as to human carcinogenicity(1986)

Reproductive toxicity data is not available.

## STOT

## STOT-single exposure

[cat.3 (resp. irrit.)]

[GHS Cat. Japan, base data]

respiratory tract irritation (MOE risk assessment vol.3, 2004)

[cat.3 (drow./dizz.)]

[GHS Cat. Japan, base data]

narcotic effect (MOE risk assessment vol.3, 2004)

STOT-repeated exposure data is not available.

Aspiration hazard data is not available.

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**12. Ecological Information**

## Ecotoxicity

## Aquatic toxicity

H401-Toxic to aquatic life

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

Fish (rainbow trout) LC50=1.2mg/L/96hr (MOE risk assessment vol.3, 2004)

Hazardous to the aquatic environment (Long-term)

[GHS Cat. Japan, base data]

Crustacea (Daphnia magna) NOEC=3.8mg/L/21days (MOE risk assessment vol.3, 2004)

## Water solubility

1080 mg/L(25°C) (HSDB)

## Persistence and degradability

Degrade rapidly [BOD\_Degradation : 88% (J-CHECK, 1999)]

## Bioaccumulative potential

log Pow=2.42 (PHYSPROP DB, 2005)

## Mobility in soil

Mobility in soil data is not available.

## Other adverse effects

Ozone depleting chemical data is not available.

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**13. Disposal considerations**

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

## Waste treatment methods

Avoid release to the environment.

Dispose of contents/container in accordance with local/national regulation.

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**14. Transport Information****UN No., UN CLASS**

UN No. or ID No.: Not applicable

UN Proper Shipping Name : Not applicable

Class or division (Transport hazard class) : Not applicable

Packing group : Not applicable

Not applicable to IMDG Code

Not applicable to IATA Dangerous Goods Regulations

Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) : no

Maritime transport in bulk according to IMO instruments

Noxious Liquid ; Cat. Y

Diethyl phthalate(Y-364)

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**15. Regulatory Information**

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

U.S. Toxic Substances Control Act (TSCA) Inventory

Chemicals listed in TSCA Inventory

84-66-2

All components are listed or exempted.

Other regulatory information

We are not able to check up the regulatory information with regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

Regulatory information in this section are limited to intentional ingredient(s), but does not contain information on non-intentional ingredients or impurities which are not informed by supplier(s).

Chemical safety assessment

Advice on safe handling for this product can be found in sections 7 and 8 of this SDS.

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**16. Other information**

GHS classification and labelling

H315–Skin Irrit. 2: H315 Causes skin irritation

H320–Eye Irrit. 2B: H320 Causes eye irritation

H317–Skin Sens. 1: H317 May cause an allergic skin reaction

H335–STOT SE 3: H335 May cause respiratory irritation

H336–STOT SE 3: H336 May cause drowsiness or dizziness

H401–Aquatic Acute 2: H401 Toxic to aquatic life

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN IMDG Code, 2018 Edition (Incorporating Amendment 39-18)

IATA Dangerous Goods Regulations (62nd Edition) 2021

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2022 TLVs and BEIs. (ACGIH)

JIS Z 7252 : 2019

JIS Z 7253 : 2019

2021 Recommendation on TLVs (JSOH)

Supplier's data/information

Chemicals safety data management system "GHS Assistant" Version 4.18 (<https://www.asahi-ghs.com/>)

NITE Chemical Risk Information Platform "NITE-CHRIP"

([https://www.nite.go.jp/en/chem/chrip/chrip\\_search/systemTop](https://www.nite.go.jp/en/chem/chrip/chrip_search/systemTop))

GHS Classification Guidance for Enterprises 2019 Revised Edition (Ver. 2.0) (Mar. 2020, METI)

#### Definitions and Abbreviations

SDS (Safety Data Sheet)

LD50 (Lethal Dose, 50%)

LC50 (Lethal Concentration, 50%)

IARC (International Agency for Research on Cancer)

ACGIH (American Conference of Governmental Industrial Hygienists)

EPA (US Environmental Protection Agency)

NTP (US National Toxicology Program)

JSOH (Japan Society for Occupational Health)

EU (European Union)

EC50 (Effective Concentration, 50%)

NOEC (No Observed Effect Concentration)

BOD (Biochemical Oxygen Demand)

COD (Chemical Oxygen Demand)

BCF (Bioconcentration Factor)

anh (anhydride)

#### General Disclaimer

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2020).