



# Safety Data Sheet



## 1. Identification of the Substances and the Organization

Organization : National Institute of Advanced Industrial Science and Technology  
Name (AIST)  
Address : 1-3-1, Kasumigaseki, Chiyoda-ku, Tokyo, Japan  
Department : Reference Materials Office, Center for Quality Management of Metrology,  
National Metrology Institute of Japan  
Person in Charge : Certified Reference Material Staff  
Phone Number : 029-861-4059 Fax Number : 029-861-4009  
Emergency : Same as above  
Contact

Prepared on : March 26, 2012

Revised on : April 1, 2015

ID Number : 8151001

Identity of Substance/Mixture : Certified reference material: NMIJ CRM 8151-a  
Polypropylene (Phthalate Esters in PP Resin Pellet)  
Polypropylene (Phthalate Esters in PP Resin Pellet)

Recommended Use of the Chemical and Restriction on Use : This reference material can be used for quality control of analysis equipment and validation of analysis method/equipment of Phthalate Esters. Do not use this reference material for other purposes than testing/research.

## 2. Hazard Identification

GHS Classification : Cannot be classified

GHS Label Element : Cannot be classified

Signal Word : -

Hazards Statement : -

Other Hazards : [Safety Precaution]

Statement : Do not handle until all safety precautions have been read and understood

Obtain special instruction before use.

Do not use this reference material for other purpose than testing/research

Use protective gloves, eye protector and face protector.

[First-Aid Measure]

If swallowed: Rinse mouth thoroughly with water. If swallowed in large amounts or if feeling unwell, get medical advice/attention.

If in eyes: Rinse cautiously with water for several minutes. Then remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation prolongs, get medical advice/attention.

If on skin: Rinse with soap water or water. Get medical advice/attention if there is any problem.

## [Storage]

Store in a closed container in a light-shielded clean environment at about 5 °C.

Right side up with care.

## [Disposal]

Entrust disposal of this reference material to a professional waste disposal company licensed by prefectural governor.

The other hazards than the above do not result in classification or are not covered by the GHS.

### 3. Composition/Component Information

Substance/Mixture	: Mixture
Chemical Identity (1)	: Polypropylene
Synonym	: Polypropylene resin, PP
Content	: 99 % or more
Chemical Formula or Structural Formula	Molecular formula: $(C_3H_6)_n$
ID Number in Official Gazette	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. : (6) - 402
CAS Number	: 9003-07-0
Chemical Identity (2)	: Di(n-butyl) phthalate
Synonym	: Dibutyl phthalate
Content	: 963 mg/kg
Chemical Formula or Molecular formula	: $C_6H_4[COO(CH_2)_3CH_3]_2$
Structural Formula	
Molecular Weight	: 278.34
ID Number in Official Gazette	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. The Industrial Safety and Health Law: 3-1303
CAS Number	: 84-74-2
Chemical Identity (3)	: Butyl benzyl phthalate
Synonym	: Benzyl butyl phthalate
Content	: 962 mg/kg
Chemical Formula or Structural Formula	Molecular formula: $C_6H_4(COOCH_2C_6H_5)COO(CH_2)_3CH_3$
Molecular Weight	: 312.36
ID Number in Official Gazette	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. The Industrial Safety and Health Law : 3-1312
CAS Number	: 85-68-7
Chemical Identity (4)	: Di(2-ethylhexyl) phthalate
Synonym	: DOP, Dioctyl phthalate, Bis(2-ethylhexyl) phthalate
Content	: 1018 mg/kg



Chemical Formula or Structural Formula	Molecular formula : $C_6H_4(COOC_8H_{17})_2$
Molecular Weight	: 390.56
ID Number in Official Gazette	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. The Industrial Safety and Health Law: 3-1307
CAS Number	: 117-81-7
Chemical Identity (5)	: Di(2-ethylhexyl) adipate
Synonym	: Octyl adipate, Bis(2-ethylhexyl) adipate
Content	: 979 mg/kg
Chemical Formula or Structural Formula	Molecular formula: $[(CH_2)_2COOC_8H_{17}]_2$
Molecular Weight	: 370.57
ID Number in Official Gazette	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. The Industrial Safety and Health Law : 2-861
CAS Number	: 103-23-1
Chemical Identity (6)	: Di( <i>n</i> -octyl) phthalate
Synonym	: Dioctyl phthalate, Bis( <i>n</i> -octyl) phthalate
Content	: 1024 mg/kg
Chemical Formula or Structural Formula	: $C_6H_4[COO(CH_2)_7CH_3]_2$
Molecular Weight	: 390.56
ID Number in Official Gazette	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. The Industrial Safety and Health Law: 3-1307
CAS Number	: 117-84-0
Hazardous Ingredient	: Di( <i>n</i> -butyl) phthalate, Butyl benzyl phthalate, Di(2-ethylhexyl) phthalate, Di(2-ethylhexyl) adipate, Di( <i>n</i> -octyl) phthalate

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#### 4. First-Aid Measures

If in Eyes	: Rinse cautiously with water for several minutes. Then remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation prolongs, get medical advice/attention.
If on Skin	: Rinse with soap water or water. Get medical advice/attention if there is any problem.
If Inhaled	: -
If Ingested	: Rinse mouth thoroughly with water. If swallowed in large amounts or if feeling unwell, get medical advice/attention.

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#### 5. Fire Fighting Measures

Extinguishing Media	: Water spray, Dry chemical extinguishing agent, Foam
Fire-Specific Hazards	: Generates hazardous gases (HCl, CO, CO <sub>2</sub> ) in the case of fire.
Specific Fire-Fighting	: -



Method

Protection of Fire-Fighters : Carry out fire-fighting from the windward in order to avoid breathing hazardous gas. Use personal protective equipment such as fire-proof clothing, heat-resistant clothing, protective clothing, compressed air open-circuit self-contained breathing apparatus, compressed oxygen closed-circuit self-contained breathing apparatus, rubber gloves and rubber boots.

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## 6. Accidental Release Measures

Personal Protective : Eliminate potential ignition sources in the vicinity promptly. Get fire-fighting kit ready to be prepared for ignition.

Equipment and Emergency Procedures : Ventilate the affected areas thoroughly, if it is in an indoor environment, until the clean-up operation is completed. Use appropriate personal protective equipment during the operation to avoid skin contact of splash etc. and inhalation of dust and gas.

Environmental Precautions : Take precautions to prevent spillage from draining into rivers etc. to adversely impact the environment. Make it sure to appropriately treat contaminated wastewater in order to prevent untreated wastewater from being released into the surrounding environment.

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## 7. Handling and Storage Precautions

Handling

Engineering Precautions : There is no risk of ignition or explosion at room temperature. As this reference material is designated a combustible material by Fire Defense Law, avoid using fires in the vicinity without reason.

Precautions for Safe Handling : Avoid rough handling such as turning over, dropping, giving a shock to or dragging containers. Prevent spill, overflow and scattering, and avoid vapor generation.

Keep container tightly closed after using this reference material. Wash hands, face etc. thoroughly and gargle after handling this reference material.

Restrict drinking, eating and smoking to a designated area.

Do not bring gloves and other contaminated personal protective equipment into staff room.

Make a place handling this reference material a restricted area to keep out unauthorized people.

Use appropriate personal protective equipment to avoid inhalation and contact with eyes, skin and clothing.

Use local ventilation system in indoor handling areas.

Storage

Appropriate Storage : Store in a light-shielded, clean and cool environment at 5 °C or



Conditions : lower such as in refrigerator.  
Do not store container in a way to allow its lid and pellets of this reference material to contact with each other for a long time.

Safe Container : Glass

Packaging Material

## 8. Exposure Controls/Personal Protection

### Threshold Limit Value

Not specified

### Permissible Concentration (Chemical Identity) Polypropylene

- ACGIH TLV-TWA : Not specified
- Value recommended by Japan Society for Occupational Health : Not specified
- OSHA PEL TWA : Not specified

### Permissible Concentration (Chemical Identity) Di(*n*-butyl) phthalate

- ACGIH TLV-TWA : 5 mg/m<sup>3</sup>
- Value recommended by Japan Society for Occupational Health : Not specified
- OSHA PEL TWA : 5 mg/m<sup>3</sup> (8 hours)

### Permissible Concentration (Chemical Identity) Butyl benzyl phthalate

- ACGIH TLV-TWA : Not specified
- Value recommended by Japan Society for Occupational Health : Not specified
- OSHA PEL TWA : Not specified

### Permissible Concentration (Chemical Identity) Di(2-ethylhexyl) phthalate

- ACGIH TLV-TWA : TWA 5 mg/m<sup>3</sup>, STEL 10 mg/m<sup>3</sup>
- Value recommended by Japan Society for Occupational Health : Not specified
- OSHA PEL TWA : Air TWA 5 mg/m<sup>3</sup>

### Permissible Concentration (Chemical Identity) Di(2-ethylhexyl) adipate

- ACGIH TLV-TWA : Not specified
- Value recommended by Japan Society for Occupational Health : Not specified
- OSHA PEL TWA : Not specified

### Permissible Concentration (Chemical Identity) Di(*n*-octyl) phthalate

- ACGIH TLV-TWA : Not specified
- Value recommended by Japan Society for Occupational Health : Not specified
- OSHA PEL TWA : Not specified

### Engineering Controls

Ventilation/Exhaust : Local or general ventilation equipment

Storage Precautions : Store in a light-shielded, clean and cool environment at 5 °C or lower such as in refrigerator.  
Do not store container for a long time in a way to allow its lid and pellets of this reference material to contact with each other.



### Personal Protective Equipment (PPE)

- Respiratory System : Protective mask  
Hands : Protective gloves  
Eyes : Eye protector  
Skin and Body : Protective clothing

### Hygiene measure

Treat in accordance with rules on Industrial hygiene and Industrial safety.

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## 9. Physical and Chemical Properties

- Appearance, etc. : Solid
  - Color : White
  - Odor : -
  - Melting Point : 150 °C to 165 °C (Polypropylene)
  - Flash Point : 350 °C to 400 °C (Polypropylene)
  - Solubility : Insoluble in water
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## 10. Stability and Reactivity

### Stability

- Stable under normal conditions

### Reactivity

- Combustible
- Not ignitable (not spontaneously ignitable, not reactive with water)

### Conditions to Avoid

- Decomposition induced at high temperature of 300 °C or higher
- Attacked by strong alkalis

### Hazardous Decomposition Products

- Generate carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO) and combustible hydrogen when being combusted
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## 11. Toxicological Information

### Acute toxicity

#### 【Di(*n*-butyl) phthalate】

Oral Rat LD50: 7499 mg/kg (RTECS)

Inhalation Rat LC50: 4250 mg/m<sup>3</sup> (RTECS)

Dermal Rat LD50: 6 gm/kg (RTECS)

Oral Mouse LD50: 3474 mg/kg (RTECS)

Inhalation Mouse LC50: 25 gm/m<sup>3</sup>/2 hours (RTECS)

Minimum value is 6300 mg/kg, based on oral administration to rats: LD50=6300 mg/kg and 8000 mg/kg, based on EU-RAR No.29 (2003) and >20000 mg/kg according to EHC 189 (1997).

Acute toxicity was observed based on a case on human in which 23-year-old male worker swallowed di(*n*-butyl) phthalate of 10 g by mistake (EU-RAR No.29 (2003)).

#### 【Butyl benzyl phthalate】

Oral Rat LD50 : 2330 mg/kg

Abdominal cavity Mouse LD50 : 3260 mg/kg

Calculated value is LD50=3440 mg/kg when a calculation formula is applied by using results of oral administration studies using rats: LD50=2330 mg/kg (CERI • NITE Hazard Assessment Report No.204 (2004)), 13500 mg/kg (CERI Hazard Data Book 97-7 (1998)) and 20400 mg/kg (CERI • NITE Hazard Assessment Report No.204 (2004)).

**【Di(2-ethylhexyl) phthalate】**

Oral Mouse LD50 : 30 g/kg

Oral Human TDLo : 143 mg/kg Damage to digestive organs

Oral Rabbit LD50 : 34 g/kg

Dermal Rabbit LD50 : 25 g/kg

Abdominal cavity Rat LD50 : 30700 mg/kg

Intravenous Rat LD50 : 250 mg/kg

**【Di(2-ethylhexyl) adipate】**

Oral Rat LD50: 7392 mg/kg (RTECS)

Oral Mouse LD50: 15000 mg/kg (RTECS)

Intravenous Rat LD50: 900 mg/kg (RTECS)

Abdominal cavity Rat LD50: 46000 mg/kg (RTECS)

Abdominal cavity Mouse LD50: 5000 mg/kg (RTECS)

Dermal Rabbit LD50: 8410 mg/kg/24 hours (RTECS)

**【Di(n-octyl) phthalate】**

Oral Rat LD50: 47 gm/kg (RTECS)

Abdominal cavity Rat LD50: >50 mL/kg (RTECS)

Oral Rat LD50: 6513 mg/kg (RTECS)

Abdominal cavity Mouse LD50: 65 gm/kg (RTECS)

Percutaneous: Based on result of percutaneous administration study using guinea pigs: LD50=4890 mg/kg (CERI Hazard Data Book 001-63 (2002))

Skin Corrosion/  
Irritation

**【Di(n-butyl) phthalate】**

Vapor is relatively mild although it causes nose and throat irritation.

Minor or light irritation (CERI • NITE Hazard Assessment Report No.11 (2004) and EU-RAR No.29 (2003)).

**【Butyl benzyl phthalate】**

“Medium-level irritation” was observed in skin irritation study using rabbits which is not four-hour application study (CERI • NITE Hazard Assessment Report No.204 (2004)).

**【Di(2-ethylhexyl) phthalate】**

Skin irritation Rabbit 500 mg/24 hours Light

Bis(2-ethylhexyl) phthalate is suspected of causing no skin irritation or light skin irritation based on ATSDR (2002) and EU-RAR No.42 (2003).

**【Di(2-ethylhexyl) adipate】**

Dermal Rabbit 500 mg Open system Light

Result of primary skin irritation study using rabbits: Caused



<p>Serious Eye Damage/ Eye Irritation</p>	<p>slight erythema which disappeared after 72 hours (CERI Hazard Data Book 97-12 (1998)).</p>
	<p><b>【Di(<i>n</i>-octyl) phthalate】</b> Skin irritation Rabbit 500 mg/24 hours Light (RTECS)</p>
	<p><b>【Di(<i>n</i>-butyl) phthalate】</b> Vapor is relatively mild although it causes eye irritation. Caused eye irritation, but recovered after 48 or 72 hours (CERI · NITE Hazard Assessment Report No.11 (2004) and EU-RAR No.29 (2003)).</p>
	<p><b>【Butyl benzyl phthalate】</b> “Light irritation” was observed in eye irritation study using rabbits (CERI Hazard Data Book 97-7 (1998) and CERI · NITE Hazard Assessment Report No.204 (2004)).</p>
<p>Respiratory Sensitization</p>	<p><b>【Di(2-ethylhexyl) phthalate】</b> Eye irritation Rabbit 500 mg/24 hours Light Minor eye irritation Bis(2-ethylhexyl) phthalate is suspected of causing no eye irritation or minor eye irritation based on ACGIH (7<sup>th</sup> (2001)), ATSDR (2002), EHC 131 (1992) and EU-RAR No.42 (2003).</p>
	<p><b>【Di(2-ethylhexyl) adipate】</b> Eye Rabbit 500 mg Open system <b>【Di(<i>n</i>-octyl) phthalate】</b> Eye irritation Rabbit 20 mg Severe (RTECS) Eye irritation Rabbit 500 mg/24 hours Light (RTECS)</p>
<p>Skin Sensitization</p>	<p><b>【Di(<i>n</i>-octyl) phthalate】</b> Respiratory sensitization: No data available In human immunological case, asthmatoïd reaction was observed in a worker exposed continuously to di(<i>n</i>-octyl) phthalate (whose detailed structure was not known) (CERI Hazard Data Book 2001-63 (2002)).</p>
	<p><b>【Di(<i>n</i>-octyl) phthalate】</b> Skin sensitization: In human immunological case, when di(<i>n</i>-octyl) phthalate (whose isomer is not known in detail) was applied to skin of volunteers, skin irritation and sensitization were observed (Ministry of Environment “Risk Assessment Book Vol.4” (2005)).</p>
	<p><b>【Di(<i>n</i>-butyl) phthalate】</b> Skin sensitization: In animal experiments, di(<i>n</i>-butyl) phthalate did not cause any skin sensitization. Some human case studies, however, imply positive results (EU-RAR No.29 (2003) and EHC 189 (1997)).</p>
<p>Germ Cell Mutagenicity</p>	<p>Di(<i>n</i>-butyl) phthalate is classified to Group 2 skin sensitization in the recommendation of Japan Society for Occupational Health (2005). Japanese Society of Occupational and Environmental Allergy reports di(<i>n</i>-butyl) phthalate causes skin irritation (2004).</p>
	<p><b>【Butyl benzyl phthalate】</b></p>



Carcinogenicity

No inter-generation mutagenicity, No germ cell in vivo mutagenicity, Positive in somatic cell in vivo mutagenicity study (chromosome aberration study), No germ cell in vivo genotoxicity (CERI · NITE Hazard Assessment Report No.204 (2004), NTP DB (Access on April 2006), CICAD 17 (1999) and CaPSAR (2000)).

**【Polypropylene】**

Group C in IARC Carcinogenicity classification (Human carcinogenicity cannot be classified.)

**【Di(*n*-butyl) phthalate】**

EPA D: Human carcinogenicity cannot be classified.

**【Di(2-ethylhexyl) phthalate】**

Group 3 in IARC Carcinogenicity classification, Group R in NTP (2005), B2 in EPA (2002), A3 in ACGIH (2001), Group 2 B in Japan Society for Occupational Health

NTP: R (Carcinogenic to humans)

IARC: Group 3 (Human carcinogenicity cannot be classified.)

ACGIH: A3 (Carcinogenic to animals)

Japan Society for Occupational Health: Group 2 B (May be carcinogenic to humans (There are relatively insufficient evidences.))

**【Di(2-ethylhexyl) adipate】**

IARC: Group 3 (Human carcinogenicity cannot be classified.)

Reproductive Toxicity

**【Di(*n*-butyl) phthalate】**

In reproductive toxicity study using rats and mice, F0 fertility drop, atrophy of testis, drop of sperm production capability, miscarriage in mid-pregnancy and drop of liveborn infants were observed. In multiple teratogenicity studies using rats and mice, malformation (external malformation and skeletal malformation) was observed in children animals. Furthermore, in the case of rats, developmental anomaly of testis and accessory reproductive gland was observed in second-generation male rats. For parent animals, general toxicity was observed or impacts were not reported (CERI · NITE Hazard Assessment Report No.11(2004)).

**【Butyl benzyl phthalate】**

At dose causing no general toxic effects on parent animals, survival rate and weight of second-generation animals showed a decrease (Ministry of Environment “Risk Assessment Vol.3” (2004)).

**【Di(2-ethylhexyl) phthalate】**

At dose causing no effects on parent animals, effects were observed in second-generation animals according to the report of U.S.NTP-CERHR 2000 (CERI · NITE Hazard Assessment Report No.7 (2004)).

**【Di(2-ethylhexyl) adipate】**

In one-generation study using rats, weight and length of rat fetuses decreased at dose causing effects on parent rats. In rat

<p>Specific target organ toxicity/Systemic toxicity (Single exposure)</p>	<p>teratogenicity study, dose-dependent ureter malformation (dilation and torsion) was observed in rat fetuses. General toxicity in parent animals was not reported (Ministry of Environment “Risk Assessment Vol.2” (2003) and IARC 77 (2000)).</p> <p><b>【Di(<i>n</i>-octyl) phthalate】</b></p> <p>In mouse teratogenicity study, the number of births decreased at dose whose effects on general toxicity in parent animals were unknown (Ministry of Environment “Risk Assessment Vol.4” (2005) and ATSDR (1997)).</p> <p><b>【Di(<i>n</i>-butyl) phthalate】</b></p> <p>Kidney and nerve system are considered to be target organs and airway irritation was observed, based on 1) for humans, “large amounts of red cells and leukocytes were observed in urinary sediment” (CERI · NITE Hazard Assessment Report No.11 (2004)), 2) for experimental animals, “labored respiration, ataxia, local paralysis, twitch and lethargy were observed and some animal died due paralysis of respiratory system” (CERI · NITE Hazard Assessment Report No.11 (2004)), 3) “obvious irritation to mucous of upper respiratory tract” (EU-RAR No.29 (2004)), etc. Effects on nerve system of experimental animals were observed at the level of guidance value equivalent to Category 1.</p> <p><b>【Butyl benzyl phthalate】</b></p> <p>Airway irritation, based on the report of “caused irritation to eyes, skin and airway” (ICSC (1998))</p>
<p>Specific target organ toxicity/Systemic toxicity (Repeated exposure)</p>	<p><b>【Di(<i>n</i>-butyl) phthalate】</b></p> <p>For experimental animals, testis and liver are considered to be target organs based on 1) “vacuolization of Sertoli cells is observed in testis” (CERI · NITE Hazard Assessment Report No.7(2004)) and 2) “hepatocyte swelling, lipomatosis around portal vein, lipid filling in lysosomes, glycogen depletion, change of bile duct structure, induction of peroxisomal enzyme and cytochrome” (CERI Hazard Data Book 96-17(1997)).</p> <p>Effects on experimental animals were observed at the level of guidance value equivalent to Category 2.</p>

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## 12. Ecological Information

### Persistence and Degradability

**【Di(*n*-butyl) phthalate】**

Degree of decomposition: 69 % by BOD (METI Existing Chemical Substance Safety Check)

**【Butyl benzyl phthalate】**

Degree of decomposition: 81 % by BOD (METI Existing Chemical Substance Safety Check)

**【Di(2-ethylhexyl) phthalate】**

Degree of decomposition: 29 % by BOD

**【Di(*n*-octyl) phthalate】**

Degree of decomposition: 67 % by BOD (METI Existing Chemical Substance Safety Check)



Bioaccumulative Potential

【Di(*n*-butyl) phthalate】

Concentration rate (BCF): 3.1 to 21.2 (Concentration: 0.05 mg/L) : 5.20 to 176  
(Concentration: 0.015 mg/L) (METI Existing Chemical Substance Safety Check)

【Di(2-ethylhexyl) phthalate】

Concentration rate (BCF): 1.0 to 3.4(Concentration: 1 mg/L), 1.3 to 29.7(Concentration: 0.1 mg/L)

Ecotoxicity

【Di(*n*-butyl) phthalate】

Fish toxicity: *Oryzias latipes* LC50: 2.8 mg/L/96 hours

Fish (Channel catfish): 96 hours LC50=0.46 mg/L (EU-RAR (2004))

【Butyl benzyl phthalate】

Fish (Shiner perch): 96 hours LC50=510 µg/L (CICAD17 (1999))

【Di(2-ethylhexyl) phthalate】

Fish toxicity: Acute toxicity in *Oryzias latipes* LC50 : 200 mg/L/48 hours to 3000 mg/L/48 hours

【Di(2-ethylhexyl) adipate】

Fish toxicity: 96 hours EC50: >0.78 mg/L (*Selenastrum capricornutum*) Growth inhibition Freshwater U.S.EPA)

【Di(*n*-octyl) phthalate】

Fish toxicity: Fish (*Oryzias latipes*) 96 hours LC50>20 mg/l (Ministry of Environment “Ecological Effect Study” (1997))

Other data: Solubility in water 0.022 mg/L (PHYSPROP Database (2005))

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### 13. Disposal Considerations

This reference material falls under the category of “Industrial Waste: Plastic Waste Group” in Waste Disposal and Public Cleaning Act. Entrust disposal of this reference material to a professional waste disposal company in accordance with Waste Disposal and Public Cleaning Act. Or when local government takes care of the disposal, use the service provided by local government.

In the case of incineration, use a controlled incinerator and dispose of the waste in accordance with Waste Disposal and Public Cleaning Act, Air Pollution Control Law and Water Pollution Control Law.

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### 14. Transport Information

UN Number : Not applicable

UN : -

Classification

Shipping Name : -

ICAO/IATA : Not applicable

Marine : Not applicable

Pollutant

Precautions : Transport this reference material carefully while keeping it away from direct sunlight and fire and preventing accidental release due to falling, overturning, etc.



Right side up with care.

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## 15. Applicable Legislation

### Fire Defense Law

Designated combustible materials Synthetic resin group

### Waste Disposal and Public Cleaning Act

Industrial waste: Plastic waste group

### Industrial Safety and Health Law

Hazardous substance whose name, etc. must be notified

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## 16. Other Information

### Others

The information in this Safety Data Sheet is not intended to be exhaustive and is based on currently-available information and data. The precautions given in this data sheet are applicable only to normal handling conditions. When handling this reference material under special conditions etc., it is recommended to take safety precautions appropriate to each specific application and context of use. This Safety Data Sheet (SDS) is intended to provide information and not intended to guarantee anything in handling the reference material. This Safety Data Sheet (SDS) is prepared based on JIS Z7253, and presents identical information to Material Safety Data Sheet (MSDS) prepared based on JIS Z7250:2010.

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Sample