Safety Data Sheet(SDS)

Last revised date : 26-12-2022

1. Identification

1) Product identifier : PIA

2) Recommended use of the chemical and restrictions on use

○ Recommended use of the chemical

Feed materials, Intermediates

○ Restrictions on use

Use for recommended use only
Do not use it for weapons manufacturing and related purposes.

3) Details of the supplier of the safety data sheet

○ Seller

Company name : Lotte Chemical Corporation
Address : 05551 Lotte World Tower, 300, Olympic-ro, Songpa-gu, Seoul, 05551 Rep. of KOREA
Telephone number :

Basic Chemicals	+82-2-829-4114	Advanced Materials	+82-31-596-3114

Emergency phone number

Yeosu Plant	+82-61-688-2100	Ulsan Plant	+82-52-278-3500
Daesan Plant	+82-41-689-5900	Yeosu Plant(Advanced Materials)	+82-61-689-1100

Fax number : +82-2-834-6070

2. Hazards identification

1) Hazard classification

- Not applicable

2) Allocation label elements

Hazard pictograms

- Not applicable

Signal word

- NONE

Hazard statements

- Not applicable

Precautionary statements

- Not applicable

3) Other hazards:

According to experience and information provided, this product does not affect harmful effects when using and handling it as a regulation.

3. Composition/Information on ingredients

Chemical name	Common name	CAS No.	Content(wt%)
Isophthalic acid	isophthalic acid	121-91-5	100

4. First-aid measures

1) Following eye contact
- Call a physician immediately.

2) Following skin contact
- Get medical attention if irritation develops and persists.
- Remove contaminated clothing and shoes.

3) Following inhalation
- If symptoms persist, call a physician.
- Move to fresh air.

4) Following ingestion
- If accidentally swallowed obtain immediate medical attention.

5) Delayed and immediate effects and also chronic effects from short and long term exposure

No data available

6) Advice to physician
- In the case of accident or if you feel unwell, seek medical advice immediately.

5. Fire-Fighting measures

1) Suitable (and unsuitable) extinguishing media

○ Suitable extinguishing media
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

○ Unsuitable extinguishing media
- Do not use a solid water stream as it may scatter and spread fire.

2) Special hazards arising from the substance or mixture

○ Pyrolytic product

- No data available

○ Risk of fire and explosion

- Heating or fire can release toxic gas.

○ Other

- May cause toxic effects if inhaled.

3) Special protective equipment for firefighters

- In the event of fire, wear self-contained breathing apparatus.

6. Accident release measures

1) Personal precautions, protective equipment and emergency procedures

- Avoid dust formation.

2) Environmental precautions

- Try to prevent the material from entering drains or water courses.

3) Methods and materials for containment and cleaning up

- Keep in suitable, closed containers for disposal.
- Pick up and arrange disposal without creating dust.

7. Handling and storage

1) Precautions for safe handling

- For personal protection see section 8.
- Smoking, eating and drinking should be prohibited in the application area.

2) Conditions for safe storage (including any incompatibilities)

- Please note that materials and conditions to be avoided.
- Store in a dry place. Store in a closed container.

8. Exposure controls & personal protection

1) Chemical exposure limits, Biological exposure standard

- Contains no substances with occupational exposure limit values.

2) Appropriate engineering controls

- Ensure adequate ventilation and exhaust ventilation at the workplace.

3) Personal protective equipment

○ Respiratory protection

- If you have a direct contact or exposed to the material, wear the appropriate form of respiratory protection certified.

○ Eye protection

- If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.

○ Hand protection

- Wear chemical safety gloves.

○ Skin protection

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

9. Physical and chemical information

Property name	Values	Source
Appearance		
Physical state	Soild	
Color	achromatic ~ white	
Odor	unpleasant	
Odor threshold	Not applicable	
pH	3.36 ((0.013% solution)	
Melting point/freezing point	341~348 ℃	
Initial boiling point and boiling range(℃)	No data available	
Flash point(℃)	No data available	
Evaporation rate	Not applicable	
Flammability(solid, gas)	No data available	
Upper/lower flammability or explosive limits	No data available	
Vapour pressure	2.6 ㎜Hg (at 25℃)	
Solubility(ies)	130 ㎎/ℓ (at 25℃ soluble in alcohol, acetic acid insoluble in benzene, petroleum ether)	
Vapour density	5.73 (air=1)	
Relative density	No data available	
n-octanol/water partition coefficient	1.66	
Auto ignition temperature	No data available	
Decomposition temperature	No data available	
Viscosity(㎟/s, 40℃)	No data available	
Molecular weight(mass)	166.13	
Specific gravity	1.54 (water=1)	

10. Stability and reactivity

1) Chemical stability and Possibility of hazardous reactions
   - No decomposition if stored and applied as directed.
   - Stable at normal ambient temperature and pressure.

2) Conditions to avoid
   - Follow precautionary advice and avoid incompatible materials and conditions

3) Incompatible materials
   - Combustible material

4) Hazardous decomposition products
   - This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regula

11. Toxicological information

1) Information on the likely routes of exposure

- No data available

2) Health hazard information

○ Acute toxicity

- Acute toxicity(Oral)
  - LD50> 5000 ㎎ / ㎏ experimental species: Rat
- Acute toxicity(Dermal)
  - LD50> 2000 ㎎ / ㎏ experimental species: Rabbit
- Acute toxicity(Inhalation:Gases)
  - No data available
- Acute toxicity(Inhalation:Vapours)
  - No data available
- Acute toxicity(Inhalation:Dust/mist)
  - LD50> 11370 ㎎ / ㎥ experimental species: Rat

○ Skin corrosion/irritation
  - Non-irritating (Rabbit)

○ Serious eye damage/eye irritation
  - Slight irritation (Rabbit)

○ Respiratory sensitization
  - No data available

○ Skin sensitization

- Negative (guinea pig)

○ Carcinogenicity

- No data available

○ Germ cell mutagenicity

- in vitro microbial reverse mutation test positive / negative in vitro chromosome aberration test negative

○ Reproductive toxicity

- No effects on fetal toxicity, developmental toxicity (rats, 10mg / ㎥, inhalation)

○ Specific target organ toxicity single exposure

- No data available

○ Specific target organ toxicity repeated exposure

- 13 weeks urine test results decide, reported weak symptoms such as mild hydronephrosis renal pelvis cured in mice

○ Aspiration hazard

- No data available

12. Ecological information

1) Ecotoxicity

- Hazardous to the aquatic environment, short-term (acute)
  No data available
- Hazardous to the aquatic environment, long-term (chronic)
  No data available
- Fish
  LC50> 1000 ㎎ / ℓ 96 hr Leuciscus idus
- Crustaceans
  LC50 1000 ㎎ / ℓ 48 hr Daphnia magna
- Aquatic algae
  EC50> 1000 ㎎ / ℓ 96 hr Scenedesmus subspicatus

2) Persistence and degradability

- Degradability
  (85.3% decomposed after 14 days)
- Biodegradation
  No data available

3) Bioaccumulative potential

- n-octanol water partition coefficient
  1.66 log Kow
- Bioconcentration factor(BCF)
  2 (predicted value)

4) Mobility in soil

No data available

5) Other adverse effects

No data available

13. Disposal considerations

1) Disposal methods

- Empty containers should be taken to an approved waste handling site for recycling or disposal.

2) Precautions (including disposal of contaminated container of package)

- Dispose of in accordance with local regulations.
- Send to a licensed waste management company.

14. Transport information

1) UN No. : Not applicable

2) Proper shipping name : Not applicable

3) Hazard class : Not applicable

4) Packing group : Not applicable

5) Marine pollutant : No

6) Special precautions for user related to transport or transportation measures :

Emergency measures in case of fire : Not applicable

Emergency measures in the effluent : Not applicable

- ADR

· Tunnel restriction code : Not applicable

- IMDG

· Marine pollutant : No

- Air transport(IATA)

· UN No. : Not applicable

· Proper shipping name : Not applicable

· Class or division : Not applicable

· Packing group : Not applicable

15. Regulatory information

Australia Industrial Chemicals Act

- Not applicable

China Inventory of Existing Chemical Substances (IECSC)

- Inventory - China - Inventory of Existing Chemical Substances (IECSC)

- Isophthalic acid : Present [20710]

92/32/EEC

- Not applicable

European Union Official Journal of the European Communities 15 June 1990 - Annex Based on Article 13 of Directive 67/548/EEC Amended by Directive 79/831/EEC

- Inventory - European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)

- Isophthalic acid : 204-506-4

Japan Law Concerning the Examination and Regulations of Manufacture, etc. of Chemical Substances

- Inventory - Japan - Existing and New Chemical Substances (ENCS)

- Isophthalic acid : (3)-1332

New Zealand Environmental Protection Authority, Inventory of Chemicals

- Inventory - New Zealand - Inventory of Chemicals (NZIoC)

- Isophthalic acid : May be used as a single component chemical under an appropriate group standard

Turkey Regulation on Inventory and Control of Chemicals

- Not applicable

Taiwan Chemical Substance Inventory

- Inventory - Taiwan - Taiwan Chemical Substance Inventory (TCSI)

- Isophthalic acid : Present

U.S. Toxic Substances Control Act

Vietnam National Chemicals Inventory (NCI)

- Inventory - Vietnam - National Chemicals Inventory (NCI) (DRAFT)

- Isophthalic acid : Present 02421

16. Other information

1) Reference

NCIS, KOSHA, Montreal Protocol, ECHA, OECD SIDS, EU IUCLID, HSDB(PubChem), NITE, NTP, ACGIH, IARC, NIOSH, ChemIDplus, EPA, EPI Suite, INCHEM

2) Issue date : 26-12-2022

3) Revision date

○ Revised date count : 2-1

○ Last revised date : 26-12-2022

4) Other

ACGIH : American Conference of Governmental Industrial Hygienists
ADR : Agreement Concerning the International Carriage of Dangerous Goods by Road
ATE : The Acute Toxicity Estimate
ECHA : European Chemicals Agency
EPA : United States Environmental Protection Agency
EPI Suite : The Estimation Programs Interface for Windows
EU IUCLID : International Uniform Chemical Information Database
HSDB : Hazardous Substances Data Bank
IARC : International Agency for Research on Cancer
IATA : International Air Transport Association
IMDG : International Maritime Dangerous Goods Codes
INCHEM : Internationally Peer Reviewed Chemical Safety Information
M-Factor : The Multiplication Factor
NIOSH : National Institute of Occupational Safety and Health
NITE : National Institute of Technology and Evaluation(JAPAN)
NTP : National Toxicology Program
SCL : Specific Concentration Limit
OECD SIDS : Organization for Economic Co-operation and Development Screening Information Dataset