

# Safety Data Sheet(SDS)

Last revised date : 26-12-2022

## 1. Identification

1) Product identifier : PC/ABS FR NH-1045

2) Recommended use of the chemical and restrictions on use

○ Recommended use of the chemical

Others(Synthetic Resin Plastics)

○ 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
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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%)
2,2-Bis(4-hydroxyphenyl) propane polycarbonate	-	24936-68-3	$\geq 70 \sim \leq 80$
Phosphoric trichloride reaction products with bisphenol A and phenol	-	181028-79-5	$\geq 12 \sim \leq 22$
2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene	ABS Resin	9003-56-9	$\geq 3 \sim \leq 13$
Additives	-		$\geq 0.1 \sim \leq 5$

## 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	Depends on customer needs	
Odor	Odorless	
Odor threshold	No data available	
pH	No data available	
Melting point/freezing point	No data available	
Initial boiling point and boiling range(°C)	No data available	
Flash point(°C)	No data available	
Evaporation rate	No data available	
Flammability(solid, gas)	No data available	
Upper/lower flammability or explosive limits	No data available	
Vapour pressure	No data available	
Solubility(ies)	insolubility (water)	
Vapour density	No data available	
Relative density	No data available	
n-octanol/water partition coefficient	No data available	

Auto ignition temperature	No data available	
Decomposition temperature	400°C over	
Viscosity(mm²/s, 40°C)	No data available	
Molecular weight(mass)	No data available	
Specific gravity	1.15 ~ 1.25	

## 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) PRODUCT : Not classified
  - No data available
- Acute toxicity(Dermal) PRODUCT : Not classified
  - No data available
- Acute toxicity(Inhalation:Gases) PRODUCT : Not classified
  - No data available
- Acute toxicity(Inhalation:Vapours) PRODUCT : Not classified
  - No data available
- Acute toxicity(Inhalation:Dust/mist) PRODUCT : Not classified
  - No data available

- Skin corrosion/irritation PRODUCT : Not classified
  - No data available
- Serious eye damage/eye irritation PRODUCT : Not classified
  - No data available
- Respiratory sensitization PRODUCT : Not classified
  - No data available
- Skin sensitization PRODUCT : Not classified
  - No data available
- Carcinogenicity PRODUCT : Not classified
  - No data available
- Germ cell mutagenicity PRODUCT : Not classified
  - No data available
- Reproductive toxicity PRODUCT : Not classified
  - No data available
- Specific target organ toxicity single exposure PRODUCT : Not classified
  - No data available
- Specific target organ toxicity repeated exposure PRODUCT : Not classified
  - No data available
- Aspiration hazard PRODUCT : Not classified
  - No data available

## 12. Ecological information

### 1) Ecotoxicity

- Fish
  - Phosphoric trichloride reaction products with bisphenol A and phenol  
: LC50 40.287 mg / ℓ 96 hr (ECOSAR: Phenols)
  - 2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene  
: LC50 11.5 mg / ℓ 96 hr Pimephales promelas
- Crustaceans
  - Phosphoric trichloride reaction products with bisphenol A and phenol  
: LC50 15.340 mg / ℓ 48 hr (ECOSAR: Phenols)
- Aquatic algae
  - Phosphoric trichloride reaction products with bisphenol A and phenol  
: EC50 69.098 mg / ℓ 96 hr (ECOSAR: Phenols)

### 2) Persistence and degradability

- Degradability
  - No data available

- Biodegradation
  - Phosphoric trichloride reaction products with bisphenol A and phenol : (Recalcitrant (Biowin 1,2,5,6,7))

### 3) Bioaccumulative potential

- n-octanol water partition coefficient
  - Phosphoric trichloride reaction products with bisphenol A and phenol : 2.21 log Kow
- Bioconcentration factor(BCF)
  - Phosphoric trichloride reaction products with bisphenol A and phenol : 2.011

### 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 or 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)
  - Phosphoric trichloride reaction products with bisphenol A and phenol : Present [29464]
  - 2,2-Bis(4-hydroxyphenyl) propane polycarbonate : Present [21562]
  - 2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene : Present [03641]

### 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

- Not applicable

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

- Inventory - Japan - Existing and New Chemical Substances (ENCS)
  - Phosphoric trichloride reaction products with bisphenol A and phenol : (3)-4400
  - 2,2-Bis(4-hydroxyphenyl) propane polycarbonate : (7)-738
  - 2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene : (6)-176

### New Zealand Environmental Protection Authority, Inventory of Chemicals

- Inventory - New Zealand - Inventory of Chemicals (NZIoC)
  - Phosphoric trichloride reaction products with bisphenol A and phenol : May be used as a single component chemical under an appropriate group standard
  - 2,2-Bis(4-hydroxyphenyl) propane polycarbonate : May be used as a single component chemical under an appropriate group standard
  - 2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene : 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)
- Phosphoric trichloride reaction products with bisphenol A and phenol : Present
- 2,2-Bis(4-hydroxyphenyl) propane polycarbonate : Present
- 2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene : Present

#### U.S. Toxic Substances Control Act

#### Vietnam National Chemicals Inventory (NCI)

- Inventory - Vietnam - National Chemicals Inventory (NCI) (DRAFT)
- Phosphoric trichloride reaction products with bisphenol A and phenol : Present 29061
- 2,2-Bis(4-hydroxyphenyl) propane polycarbonate : Present 15829
- 2-Propenenitrile polymer with 1,3-butadiene and ethenylbenzene : Present 12125

## 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

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