

Safety Data Sheet(SDS)

Last revised date : 26-12-2022

1. Identification

- 1) Product identifier : ABS SP-0180
- 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
- 3) Details of the supplier of the safety data sheet
 - \bigcirc 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%) |
|---|-------------|-----------|---------------|
| polymer with 1,3-butadiene and ethenylbenzene | ABS Resin | 9003-56-9 | >=99 ~ <=99.8 |
| Addtive | - | | >=0.02 ~ <=1 |

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
- $^{\circ}$ 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.
 - $^{\circ}$ 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 | |
| pН | 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 | |
| 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) | 60,000 - 200,000 (active) | |
| Specific gravity | 1.05 - 1.10 | |

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
 - polymer with 1,3-butadiene and ethenylbenzene : LC50 11.5 mg / ℓ 96 hr Pimephales promelas
 - Crustaceans
 No data available
 - Aquatic algae
 No data available
- 2) Persistence and degradability
 - No data available
- 3) Bioaccumulative potential

No data available

- 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)
- 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)

- polymer with 1,3-butadiene and ethenylbenzene : (6)-176

New Zealand Environmental Protection Authority, Inventory of Chemicals

- Inventory New Zealand Inventory of Chemicals (NZIoC)
- 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)
- polymer with 1,3-butadiene and ethenylbenzene : Present

Vietnam National Chemicals Inventory (NCI)

- Inventory Vietnam National Chemicals Inventory (NCI) (DRAFT)
- 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
 - Revised date count : 2-1
 - · Last revised date : 26-12-2022