

Material Safety Data Sheet (MSDS)

Grade: MA201 ABS Resin

| 1. | Chemical | Product | 8. | Company | Identification |
|----|----------|---------|----|---------|----------------|
|----|----------|---------|----|---------|----------------|

a. Chemical Product Name Acrylonitrile, 1,3 Butadiene, and Styrene Co-polymer

b. Usage Electronic Goods, Automotive Parts, Package, etc.
c. Chemical Type Thermoplastics

d. Company's Address LG Chem, Ltd. 20, Yeouido-dong, Yeongdeungpo-gu, Seoul, 150-721, Korea

e. Phone / Fax number 82-2-3773-3324, 3985 / 82-2-3773-3310

f. Prepared By ABS / PS Division

2. Composition / Information On Ingredients

| | CAS Number | Contents |
|--|------------|----------|
| a. ABS (Acrylonitrile-Butadiene-Styrene) | 9003-56-9 | 98-100% |
| b. Typical Lubricant | | 0 - 1% |
| c. Typical Antioxidant | | 0 - 1% |

3. Hazards Identification

- a. Threshold Limit
- b. Effect of overexposure

| Eve Contact | Solid or dust may | cause irritation or | corneal injury due | to mechanical action |
|---------------------------------|-------------------|---------------------|--------------------|----------------------|
|---------------------------------|-------------------|---------------------|--------------------|----------------------|

Skin Absorption Unlikely due to physical properties

Ingestion Unlikely due to physical state.

Inhalation Dust may cause irritation to respiratory

In case of breathing, fumes released from heated material

may cause respiratory irritation

Chronic Effects Not Available

Mutagenicity Not Available



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a. Eye Contact Immediately rinse eyes with copious amount of running water

and seek medical advice

b. 8kin Contact Essentially nonimitating to skin but rinse with copious water

c. Ingestion If vomiting occurs, lower the head to ease vomiting and seek for medical

Advice

d. Inhalation In case of breathing, fumes released from heated material may

cause respiratory imitation

In case of inhaling dense smoke, immediately remove a

person to fresh air. If necessary, apply artificial respiration

and seek medical attention immediately

e. Mutagenicity Not Available

5. Fire Fighting Measures

a. Flammable Properties

Flash Point Not applicable

Auto ignition Temperature Not applicable

Extinguishing Media
 Usually use water and use extinguishing media appropriate to

surrounding conditions

c. Special Fire Fighting Procedure Cool Containers with water spray. In closed stores, provide fire

fighter with self-contained breathing apparatus in positive

pressure mode

d. Usual Fire and Explosion Hazards Irritating gases and dense smoke

6. Accidental Release Measures

a. Personal Precautions Pellets or beads may present a slipping hazard

b. Environmental Precautions Keep out of irrigation ditches, sewers, and water supplies

Spills should be collected to prevent contamination of waterways

c. Cleanup Sweep up



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| Handling and S | torage |
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a. Handling Avoid formation of dust. Avoid fire and heating above 60°C.

Keep bags always closed / Keep container lightly closed

Avoid pellets / bags from getting wet

b. 8to rage Keep bags / containers in a well-ventilated place

Avoid pellets / bags from getting wet

8. Exposure Controls / Personal Protection

a. Engineering Controls Good general ventilation should be sufficient for most conditions.

Local exhaust ventilation may be necessary for some operations

b. Personal Protective Equipment

Eye / Face Protection
 Use safety glasses. If the is a potential for exposure to particles which

Could cause mechanical injury to the eye, wear chemical goggles

Skin Protection
 No Precautions other than clean body-covering clothing should be needed

Respiratory Protection
 For most conditions, no respiratory protection should be needed; however,

If handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator. In dusty atmospheres, use an approved

dust respirator

Exposure Guideline (s) Although some of the additives used in this product may have exposure

guidelines, these additives are encapsulated in the product and no exposure would be expected under normal handling conditions

9. Physical And Chemical Properties

a. Appearance Pellet (Colored solid)

b. Odor Almost Odorless

c. pH Neutral

d. Boiling Point Not applicable at standard condition

e. Evaporation Rate Not applicable at standard condition

f. Specific Gravity 1.19

g. Vapor Pressure Not applicable at standard condition
h. Vapor Density Not applicable at standard condition

i. Solubility in Water insoluble

j. Solubility in other Solvent Soluble in THF, Acetone and other Analogous Solvents



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| Stability and Reactivity |
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- a. 8tability 8table under normal condition
- b. Storage conditions to avoid Avoid fire and heating above 60°C
- c. Incompatibility None known
- d. Hazardous decomposition products Not applicable
- e. Hazardous polymerization Not occur

11. Toxicological Information

8ee 8ection 3 for Potential Health Effects. For detailed toxicological data, Write or call the address or phone number shown in 8ection 1.

12. Ecological Information

- a. Environmental Fate
 - Movement & Partitioning
 No bioconcentration is expected because of the high molecular weight (MW>1000). In the terrestrial environment,
 material is expected to remain in the soil. In the aquatic environment.

material will sink and remain in the sediment.

Degradation & Persistence This water insoluble polymeric solid is expected to the inert in the

- environment. Surface degradation is expected with exposure to surface degradation is expected with exposure to surface biodegradation is expected.
- b. Ecotoxicity Not Expected to be acutely toxic, but pellets, if ingested by waterfowl or aquatic life, may mechanically cause adverse effects.

13. Disposal Considerations

Disposal: Do not Dump into any sewers, on the ground, or into any body of water.

All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with appliance laws are the responsibility solely of the waste generator.

For unused & uncontaminated product, the preferred options include sending to a licensed, permitted includer, reclaimer, incinerator or other thermal destruction device.



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14. Transport Information

Not classified as hazardous under transport regulations.

15. Other Information.

Product should be handled, stored, and used in accordance with the generally accepted industrial hygiene practices and in conformity with all the applicable legal regulations.

The information provided herein is based on the knowledge possessed at this present time from the view point of safety requirements.

It should, therefore, not be construed as guaranteeing specific properties.