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## Safety Data Sheet(SDS)

### SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product identifier : RS670  
Other means of identification : N/A  
UFI Code. : N/A

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : 29.Polymer preparations and compounds  
Uses advised against : Prohibition of use other than manufacturing of plastic products

#### 1.3 Details of the supplier of the safety data sheet

○ Company name [Manufacture]

Name : LG Chem Ohio Petrochemical, Inc.  
Address : 310 Rayann Pkwy, Ravenna, OH-44266  
Emergency number : 1-800-424-9300

### SECTION 2. Hazards identification

#### 2.1 Classification of the substance or mixture according to Regulation (EC) No 1272/2008

- Not classified

#### 2.2 Label elements

##### Hazard pictogram

The product does not require a hazard warning label in accordance with GHS criteria.

Labelling according to Regulation (EC) No 1272/2008 [CLP]

##### Signal word

- NONE

##### Hazard statements

- Not required

##### Precautionary statements

-Not required

### 2.3 Other hazards

- According to Annex XIII of (EC) No 1907/2006, the substance does not meet PBT or vPvB criteria.
- According to Regulation(EU) 2017/2100 and 2018/605, the substance does not affect to endocrine system.
- The substance is not listed in Article 59
- No other hazards have been identified

## SECTION 3. Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2 . Mixtures

Substance name	CAS No.	Classification	SCL	ATE	PCT(wt%)
	EC No.		M-Factor		
	EU REACH No.				
ABS resin	9003-56-9	No data available	No data available	No data available	95-100
	618-371-8		No data available		
	No data available		No data available		
N,N'-ethylenedi(stearamide)	110-30-5	No data available	No data available	No data available	0.1-5
	203-755-6		No data available		
	No data available		No data available		

※ Classification according Regulation(EC) No. 1272/2008 [EU CLP]

SCL

M-Factor

AT : the acute toxicity estimate

## SECTION 4. First aid measures

### 4.1 Description of first aid measures

- 4.1.1 Following eye contact
  - Get medical aid immediately.
- 4.1.2 Following skin contact
  - Not applicable
- 4.1.3 Following inhalation
  - Not applicable
- 4.1.4 Following ingestion
  - Get medical aid immediately.
  - If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

### 4.2 Most important symptoms and effects, both acute and delayed

- No data available

### 4.3 Indication of any immediate medical attention and special treatment needed

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

## SECTION 5. Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media
  - Small fire: Dry sand, dry chemical, alcohol-resistant foam, water spray, regular foam, CO2 (Suitable extinguishing media).
- Unsuitable extinguishing media
  - Water Jet (May scatter and spread fire).

### 5.2 Special hazards arising from the substance or mixture (Hazardous combustion products)

- May ignite from heat, friction or contamination.
- Some may burn, but not rapidly.
- Fire may produce irritating and/or toxic gases.
- May cause toxic effects if inhaled.

### 5.3 Advice for firefighters

- Move containers from fire area if you can do it without risk.

## SECTION 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### 6.1.1 For non-emergency personnel

- Emergency procedures
  - Removal of ignition sources, provision of sufficient ventilation.
- Protective equipment
  - Wear suitable protective equipment to prevent any contamination of skin, eyes and personal

clothing.

#### 6.1.2 For emergency responders

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Stop leak if you can do it without risk.
- Please note that materials and conditions to be avoided.

### 6.2 Environmental precautions

- Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

### 6.3 Methods and material for containment and cleaning up

#### 6.3.1 For containment

- No data available

#### 6.3.2 For cleaning up

- Not applicable

#### 6.3.3 Other information

- No data available

### 6.4 Reference to other sections

- Section 8 (protective equipment), section 13 (disposal instructions)

## SECTION 7. Handling and storage

### 7.1 Precautions for safe handling

- Please note that materials and conditions to be avoided.
- Caution: Dangerous fire hazard when exposed to heat, or flame, sparks.
- Wear an appropriate Personal protection. (See Exposure Controls/Personal Protection section.)

## 7.2 Conditions for safe storage, including any incompatibilities

- Store in a dry place. Store in a closed container.
- Please note that materials and conditions to be avoided.
- Store containers: AVOID the place where can be damage and contamination.
- Store in a cool/low-temperature, well-ventilated dry place away from heat and ignition sources.

## 7.3 Specific end uses

- See section 1 for recommended use.

# SECTION 8. Exposure controls/personal protection

## 8.1 Control parameters

Components	Occupational exposure	ACGIH regulations	Biological limit values	DNEL/DMEL	PNEC-Values
ABS resin	TWA : No data available	TWA : No data available	No data available	No data available	No data available
	STEL : No data available	STEL : No data available			
N,N'-ethylenedi(stearamide)	TWA : No data available	TWA : No data available	No data available	No data available	No data available
	STEL : No data available	STEL : No data available			

\* The ACGIH has a TLV-TWA of 10 mg/m<sup>3</sup> (as total dust) for particulates having a quartz content of less than 1 percent.

## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls

- Ensure adequate exhaust and ventilation in work area.

### 8.2.2 Individual protection measures, such as personal protective equipment

- o Eye/face protection
    - Wear an appropriate eye protection.
  - o Respiratory protection
    - If there is a direct contact or exposure, wear a certified appropriate respiratory protection.
  - o Skin protection
    - (i) Hand protection
      - Wear protective gloves made of appropriate material considering the physical and chemical properties of chemicals.
    - (ii) Other
      - No data available
  - o Thermal hazards
    - Wear appropriate protective clothing considering the physical and chemical properties of chemicals.
- ### 8.2.3 Environmental exposure controls
- Ensure not to cause environmental pollution by discharging into rivers or other waterways.
  - See section 6

# SECTION 9. Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

Physical state	solid	No data available
Relative Vapour density	No data available	No data available

Density/Relative density	No data available	No data available
Kinematic viscosity	Not applicable	No data available
Decomposition temperature	No data available	No data available
Auto ignition temperature	No data available	No data available
Partition coefficient(n-octanol/water)	No data available	No data available
Solubility	No data available	No data available
Vapour pressure	No data available	No data available
Upper/lower flammability or explosive limits	No data available	No data available
Flammability(solid, gas)	No data available	No data available
Flash point	Not applicable	No data available
Initial boiling point and boiling range	Not applicable	No data available
Melting point/freezing point	No data available	No data available
pH	Not applicable	No data available
Odour	No data available	No data available
Colour	No data available	No data available
Particle characteristics	No data available	No data available

## 9.2 Other information

### 9.2.1 Information with regard to physical hazard classes

No data available

### 9.2.2 Other safety characteristics

No data available

## SECTION 10. Stability and reactivity

### 10.1 Reactivity

- Some may burn, but not rapidly.

### 10.2 Chemical stability

- Stable under normal temperatures and pressures.  
- Under storage at normal ambient temperatures. the product is stable.

### 10.3 Possibility of hazardous reactions

- Fire may produce irritating and/or toxic gases.  
- May cause toxic effects if inhaled.  
- No hazardous reaction when handled and stored according to provisions.

### 10.4 Conditions to avoid

- Exposure to elevated temperatures can cause product to decompose. Avoid moisture.  
- Ignition source(heat, spark, flame, etc.).

### 10.5 Incompatible materials

- Combustibles.  
- Avoid contact with: Strong oxidizers, Flammables.

## 10.6 Hazardous decomposition products

- No known hazardous decomposition products

## SECTION 11. Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### ○ Acute toxicity

- Acute toxicity(Oral) > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : LD50 >5000 mg/kg, Source: IUCLID
- ABS resin : No data available

- Acute toxicity(Dermal) > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : LD50 >2000 mg/kg, Source: IUCLID
- ABS resin : No data available

- Acute toxicity(Inhalation:Gases) > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

- Acute toxicity(Inhalation:Vapours) > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available
- Acute toxicity(Inhalation:Dust/mist) > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

- Skin corrosion/ irritation > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

- Serious eye damage/ irritation > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

- Respiratory or skin sensitisation > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

- Skin sensitization > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

○ Carcinogenicity > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

○ Germ cell mutagenicity > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : Invitro/Voice, Source: IUCLID
- ABS resin : No data available

○ Reproductive toxicity > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

○ Specific target organ toxicity (single exposure) > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

○ Specific target organ toxicity (repeated exposure) > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

○ Aspiration hazard > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

## 11.2. Information on other hazards

○ 11.2.1. Endocrine disrupting properties

- N,N'-ethylenedi(stearamide) : According to Regulation(EU) 2017/2100 and 2018/605, the substance not affects to endocrine system.
- ABS resin : According to Regulation(EU) 2017/2100 and 2018/605, the substance not affects to endocrine system.

○ 11.2.2. Other information

- N,N'-ethylenedi(stearamide) : No other hazards have been identified
- ABS resin : No other hazards have been identified

## SECTION 12. Ecological information

### 12.1 Toxicity > PRODUCT : Not classified

#### ● Fish

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : LC50 11.5 mg/ℓ 96 hr Pimephales promelas, Source: ECOTOX

#### ● Crustaceans

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

#### ● Aquatic Algae

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

## 12.2 Persistence and degradability

### ●Persistence

- N,N'-ethylenedi(stearamide) : 13.98 log Kow (@ 25 °C), Source: ECHA
- ABS resin : No data available

### ●Degradability

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

### ●Biodegradation

- N,N'-ethylenedi(stearamide) : 15 (%) 28 days, Source: IUCLID
- ABS resin : No data available

## 12.3 Bioaccumulative potential

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

## 12.4 Mobility in soil

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

## 12.5 Results of PBT and vPvB assessment

- N,N'-ethylenedi(stearamide) : Not applicable
- ABS resin : Not applicable

## 12.6 Endocrine disrupting properties

- N,N'-ethylenedi(stearamide) : According to Regulation(EU) 2017/2100 and 2018/605, the substance not affects to endocrine system.
- ABS resin : According to Regulation(EU) 2017/2100 and 2018/605, the substance not affects to endocrine system.

## 12.7 Other adverse effects > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : No data available
- ABS resin : No data available

## SECTION 13. Disposal considerations

### 13.1 Waste treatment methods

#### 13.1.1 Product / Packaging disposal

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

#### Waste codes / waste designations according to LoW

- 12-01-05 plastics shavings and turnings

#### 13.1.2 Waste treatment-relevant information

- Disposal according to local regulations.

#### 13.1.3 Sewage disposal-relevant information

- Disposal according to local regulations and avoid release to the environment.

#### 13.1.4 Other disposal recommendations

## SECTION 14. Transport information

- 14.1 UN number or ID number : Not applicable
- 14.2 UN proper shipping name : Not applicable
- 14.3 Transport hazard class(es) : Not applicable
- 14.4 Packing group : Not applicable
- 14.5 Environmental hazards : Not applicable
- 14.6 Special precaution for user
- Emergency measures in case of fire : Not applicable
  - Emergency measures in the effluent : Not applicable
- 14.7 Maritime transport in bulk according to IMO instruments
- ADR
    - Tunnel restriction code : Not applicable
  - IMDG
    - Marine pollutant : Not applicable
  - Air transport(IATA)
    - UN No. : Not applicable
    - Proper shipping name : Not applicable
    - Class or division : Not applicable
    - Packing group : Not applicable

## SECTION 15. Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- ETC regulation - EU. Chemicals & Articles Subject to Export Ban: Annex V (Art. 15), Regulation 649/2012/EU, as amended by Regulation 2022/643, OJ L 118, 20 April 2022
  - Not applicable
- ETC regulation - EU. Directive 2012/18/EU on major accident hazards involving dangerous substances, Annex I, OJ (L 197)1, 24 July 2012
  - Not applicable
- ETC regulation - EU. F-Gases Subject to Emission Limits/Reporting (Annexes I, II, III), Regulation (EU) 2024/573 on Fluorinated Greenhouse Gases, 20 February 2024
  - Not applicable
- ETC regulation - EU. GHS Classification. CLP Regulation (EC) No 1272/2008, Annex VI, Table 3, Harmonized List of Hazardous Substances, as amended by Regulation (EU) 2024/197, OJ L of 5 January 2024
  - Not applicable
- ETC regulation - EU. Ozone Depleters, Annex I to Regulation 2024/590 on Substances that Deplete the Ozone Layer, 20 February 2024
  - Not applicable

- ETC regulation - EU. Polluting Substances: Annex II, Directive 2010/75/EU on Industrial Emissions (IPPC), 17 December 2010
  - Not applicable
- ETC regulation - EU. REACH, Annex XIV, Substances Subject to Authorization (Authorization List), as amended through Regulation (EU) 2022/586, 11 April 2022
  - Not applicable
- ETC regulation - EU. REACH, Annex XVII, Restrictions on manufacture, placing on the market and use of certain dangerous substances, 1907/2006/EC, as amended by Regulation (EU) 2023/2055, OJ L 238, 27 September 2023
  - Not applicable
- ETC regulation - EU. REACH: Candidate List of Substances of Very High Concern for Authorization (SVHC) (last inclusion as of 23 January 2024)
  - Not applicable
- ETC regulation - EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), 25 June 2019, as amended by Commission Delegated Regulation (EU) 2023/1608, OJ L 198, 8 August 2023
  - Not applicable
- ETC regulation - EU. Substances that Deplete the Ozone Layer (Annex II) Regulation (EU) 2024/590, 20 February 2023
  - Not applicable
- Global Inventory - EU. European Inventory of Existing Commercial Chemical Substances (EINECS)
  - N,N'-ethylenedi(stearamide)

## 15.2 Chemical Safety Assessment

Not applicable

## SECTION 16. Other information

### 16.1 Key literature references and sources for data

- ECHA
- EPI Suite
- EPISUITE
- EU CLP
- Ecological Structure Activity Relationships (ECOSAR)
- European chemical Substances Information System (<http://ecb.jrc.it/esis>)
- HSDB
- IUCLID
- National Library of Medicine (NLM) (<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?CHEM>)
- Occupational Safety and Health Research Institute 2019 inhalation toxicity test and evaluation results
- QSAR
- ECHA registration data
- ECOSAR
- ECOTOX

**16.2 Issuing date** : 06/01/2024

**16.3 Indication of changes**

**Revision number** : 0

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**Revision history** :

**16.4 Abbreviations and acronyms**