

Safety Data Sheet(SDS)

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

- 1) Product identifier : ER232
- 2) Relevant identified uses of the substance or mixture and uses advised against
 - Relevant identified uses
 - 29.Polymer preparations and compounds
 - Uses advised against
 - Do not use other than plastic manufacturing purposes
- 3) Supplier information
 - Company name [Manufacture]
 - Company : LGC Yeosu (Hwachi)
 - Address : 55, Yeosusandan 2-ro, Yeosu-si, Jeollanam-do, Republic of Korea
 - Emergency number : +82-42-719-3234

2. HAZARD IDENTIFICATION

- 1) Hazard classification
 - No data available
- 2) Allocation label elements
 - Hazard pictograms
 - Signal word
 - NONE
 - Hazard statements
 - No data available

Precautionary statements

No data available

3) Other hazards No data available

○ Product NFPA Level

Health	Flammability	Reactivity
0	0	0

(※ 0 = Stable , 1 = Low , 2 = Medium , 3 = High , 4 = Very High)

3. Composition/Information on ingredients

Components	Common name	CAS No.	PCT(wt%)
ABS resin	ABS resin	9003-56-9	90 -100
N,N'-ethylenedi(stearamide)	N,N'-ethylenedi(stearamide)	110-30-5	0.1 - 5

Components not listed do not contain hazardous/hazardous substances according to the Occupational Safety and Health Act.

4. FIRST AID MEASURES

1) Following eye contact

- In case of contact with material, immediately flush eyes with running water for at least 15 minutes.

2) Following skin contact

No data available

3) Following inhalation

No data available

4) Following ingestion

- Get medical aid immediately.

5) Advice to physician

No data available

5. FIRE FIGHTING MEASURES

1) Suitable (and unsuitable) 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
 - High-pressure water (Unsuitable extinguishing media).
- 2) Special hazards arising from the substance or mixture
 - Pyrolytic product
 - Specific hazards arising from the chemical : Carbon oxides
 - Risk of fire and explosion
 - Some may burn but none ignite readily.
 - Other
 - No data available
- 3) Special protective equipment for firefighters
 - Protective equipment and precautions to be worn in case of fire: Wear a breathing mask if possible

6. ACCIDENTAL RELEASE MEASURES

- 1) Health considerations and protective equipment
 - Wear suitable personal protective equipment
- 2) Environmental precautions
 - No data available
- 3) For cleaning up
 - No data available

7. HANDLING AND STORAGE

- 1) Precautions for safe handling
 - Wear an appropriate Personal protection. (See Exposure Controls/Personal Protection section.)
 - Caution: Dangerous fire hazard when exposed to heat, or flame, sparks.
- 2) Conditions for safe storage (including any incompatibilities)
 - Store in a cool/low-temperature, well-ventilated {dry} place {away from heat and ignition sources}

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

- 1) Chemical exposure limits, Biological exposure standard

Components	Occupational exposure limits	ACGIH	Biological standard
ABS resin	TWA : Not applicable STEL : Not applicable	TWA : Not applicable STEL : Not applicable	Not applicable
N,N'-ethylenedi(stearamide)	TWA : Not applicable STEL : Not applicable	TWA : Not applicable STEL : Not applicable	Not applicable

2) Appropriate engineering controls

- Not applicable

3) Personal protection equipment

- Respiratory protection
 - Wear breathing protection, which needs a confirmation from the Korea Occupational Safety and Health Agency.
 - If high frequency of use or exposure, wear air respirator.
- Eye protection
 - Wear suitable protective goggles and face shields.
- Hand protection
 - Wear suitable protective gloves.
- Body protection
 - Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	pellet
Physical state	Solid
Colour	No data available
Odour	No data available
Odour threshold	No data available
pH	No data available
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	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)	No data available
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	No data available

Viscosity	No data available
Molecular weight(mass)	No data available

10. STABILITY AND REACTIVITY

- 1) Stability and hazardous reactivity
 - May cause toxic effects if inhaled.
 - Fire may produce irritating and/or toxic gases.
 - Some may burn but none ignite readily.
- 2) Conditions to avoid
 - Ignition source(heat, spark, flame, etc.).
- 3) Incompatible materials
 - No data available
- 4) Hazardous decomposition products
 - No data available

11. TOXICOLOGICAL INFORMATION

- 1) Exposure route information
 - Inhalation
 - Inhalation through respiratory tract : No data available
 - Skin Contact
 - Following skin contact: No data
 - Eye Contact
 - Eye contact : No data available
 - Ingestion
 - Ingestion by mouth: No data available
- 2) Health hazard information
 - Acute toxicity
 - Acute toxicity(Oral) PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : LD50> 5000 mg / kg, Source: IUCLID
 - Acute toxicity(Dermal) PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : LD50> 2000 mg / kg, Source: IUCLID
 - Acute toxicity(Inhalation:Gases) PRODUCT : Not classified

- ABS resin : No data available
- N,N'-ethylenedi(stearamide) : No data available
- Acute toxicity(Inhalation:Vapours) PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available
- Acute toxicity(Inhalation:Dust/mist) PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available
- Skin corrosion/irritation PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available
- Serious eye damage/eye irritation PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available
- Respiratory sensitization PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available
- Skin sensitization PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available
- Carcinogenicity PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available
- Germ cell mutagenicity PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : In vitro / audio, Source: IUCLID
- Reproductive toxicity PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available
- Specific target organ toxicity single exposure PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available
- Specific target organ toxicity repeated exposure PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available

- Aspiration hazard PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available

12. ECOLOGICAL INFORMATION

1) Aquatic toxicity

- Fish>PRODUCT : Not classified
 - ABS resin : LC50 11.5 mg / ℓ 96 hr Pimephales promelas, Source: ECOTOX
 - N,N'-ethylenedi(stearamide) : No data available
- Crustacea>PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available
- Aquatic algae>PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available

2) Persistence and degradation

- n-octanol water partition coefficient>PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : 13.98 log Kow (@ 25 °C), Source: ECHA
- Degradation>PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : No data available
- Biodegradation>PRODUCT : Not classified
 - ABS resin : No data available
 - N,N'-ethylenedi(stearamide) : 15 (%) 28 day (), Source: IUCLID

3) Bioaccumulative potential>PRODUCT : Not classified

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

4) Mobility in soil>PRODUCT : Not classified

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

5) Other adverse effects>PRODUCT : Not classified

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

13. DISPOSAL CONSIDERATIONS

1) Disposal methods

- Every commercial waste producer shall either treat wastes generated from his/her place of business by him/herself or commission the treatment of such wastes to a person who has license for a waste treatment business under Article 26(3), a person who recycles of such wastes under Article 44(2), a person who has installed and operates a waste disposal facility under Article 4 or 5, a person who has completed the registration of a business of discharging wastes into the sea under Article 18 of the Marine Environment Management Act.

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

- Do not allow spill material to enter sewers, storm water drains, soil, etc.

14. TRANSPORT INFORMATION

1) UN No. : Not applicable

2) Proper shipping name : Not applicable

3) Class or division : Not applicable

4) Packing group : Not applicable

5) Marine pollutant : Not applicable

6) Special safety response for transportation or transportation measure :

Emergency measures in case of fire : Not applicable

Emergency measures in the effluent : Not applicable

- 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

15. REGULATORY INFORMATION

1) Occupational Safety and Health Act in Korea
PRODUCT : Not applicable

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
PRODUCT : Not applicable

15.2 Chemical Safety Assessment
PRODUCT : Not applicable

2) Toxic Chemical Control Act in Korea
PRODUCT : Not applicable

3) Safety Control of Dangerous Substances Act in Korea
PRODUCT : Not applicable

4) Wastes Control Act in Korea
PRODUCT : Designated waste (Waste containing hazardous substances - Stabilization or solidification/solidification treatment)

-In case of disposal, it must be disposed of in accordance with Article 13 of the Waste Management Act.

5) Other regulations in KOREA and Abroad regulations

- ETC regulation
- PERSISTENT ORGANIC POLLUTANTS CONTROL ACT
- Act on the registration and evaluation of chemicals PRODUCT : Existing Commercial Chemical Substances
 - ABS resin : Existing Commercial Chemical Substances
 - N,N'-ethylenedi(stearamide) : Existing Commercial Chemical Substances

16. OTHER INFORMATION

1) Reference

- CERI
- Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)
- Directivw 87/302/EEC, GLP . IUCLID
- ECHA
- ECHA registration materials
- ECOTOX
- EU IUCLID
- IUCLID
- Ministry of Employment and Labor
- Ministry of Environment
- NCIS existing chemical safety testing
- National Library of Medicine(NLM)(<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?CHEM>)
- OECD SIDS
- OECD SIDS, EU IUCLID
- OECD TG 301 C . OECD SIDS

- OECD TG404, OECD SIDS
- OECD TG423, Ministry of existing chemical safety testing (2001-2004)
- The ECOTOXicology database (ECOTOX)(http://cfpub.epa.gov/ECOTOX/quick_query.htm)

2) Print date : 2022-05-17

3) Revision date

- Revised date count : 1
- Last revised date : 2022-05-17
- Last revised history : No change details

4) Other