

Safety Data Sheet(SDS)

According to Regulation (EC) No. 2020/878

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier** : HI121U

Other means of identification :

PCN No. :

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

Relevant identified uses :

Uses advised against :

1.3 Details of the supplier of the safety data sheet

Name : LG Chem, Ltd.

Address : 55, Yeosusandan 2-ro, Yeosu-si, Jeollanam-do, Republic of Korea

Telephone number : 82-42-866-2187

Fax number :

Email :

1.4 Emergency telephone number

Emergency telephone number : +49-69-710-455-138 Customer Solution Center Europe

Opening hours : 09:00~17:00 (CET, Central European Time)

Other comments(e.g. language(s) of the phone : English, Deutsch, Korean available.

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture according to Regulation (EC) No 1272/2008**

No need for classification according to GHS criteria for this product

2.2 Label elements**Hazard pictogram**

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

Signal word

- NONE

Hazard statements

Not required

Precautionary statements

Not required

2.3 Other hazards

- According to Annex XIII, 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

The criteria for vPvB and PBT according to Regulation (EC) No 1907/2006, Annex XIII

Substance identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100

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.				
N,N'-ethylenedi(stearamide)	110-30-5	No data available	No data available	No data available	1~5
	203-755-6		No data available		
ABS resin	9003-56-9	No data available	No data available	No data available	95~100
	618-371-8		No data available		

※ Classification : Classification according Regulation(EC) No. 1272[CLP]

SCL : Specific concentration limit

M-factor : The multiplication factor

ATE : The acute toxicity estimate

SECTION 4: First aid measures

4.1 Description of first aid measures

- 4.1.1 Following eye contact
 - In case of contact with material, immediately flush eyes with running water for at least 15 minutes.
- 4.1.2 Following skin contact
 - Not applicable
- 4.1.3 Following inhalation
 - Seek immediate medical assistance.
- 4.1.4 Following ingestion
 - Get medical aid immediately.

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
 - High-pressure water (Unsuitable extinguishing media).

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

- May cause toxic effects if inhaled.
- Fire may produce irritating and/or toxic gases.
- Some may burn but none ignite readily.
- May ignite from heat, friction or contamination.

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
 - The wearing of suitable protective equipment to prevent any contamination of skin, eyes and personal clothing.
- 6.1.2 For emergency responders
 - Please note that materials and conditions to be avoided.

- Stop leak if you can do it without risk.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment

- Not applicable

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

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

7.2 Conditions for safe storage, including any incompatibilities

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

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			

8.2 Exposure controls

8.2.1 Appropriate engineering controls

- Make sure you have the right exhaust and ventilation in the workplace.

8.2.2 Individual protection measures, such as personal protective equipment

☐ Eye/face protection

- Wear suitable protective goggles and face shields.

☐ Respiratory protection

- If high frequency of use or exposure, wear air respirator.

☐ Skin protection

(i) Hand protection

- Wear suitable protective gloves.

(ii) Other

- No data available

☐ Thermal hazards

- Wear a protective gloves/protective clothes/security diameter/security surface/earplugs.

8.2.3 Environmental exposure controls

- Ensure not to cause environmental pollution by discharging into rivers or other waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid	
Relative Vapour density	No data available	
Density/Relative density	No data available	
Kinematic viscosity	No data available	
Decomposition temperature	No data available	
Auto ignition temperature	No data available	
Partition coefficient(n-octanol/water)	No data available	
Solubility	No data available	
Vapour pressure	No data available	
Upper/lower flammability or explosive limits	No data available	
Flammability(solid, gas)	No data available	
Flash point	No data available	
Initial boiling point and boiling range	No data available	
Melting point/freezing point	No data available	
pH	No data available	
Odour	No data available	
Colour	No data available	
Particle characteristics	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

- May cause toxic effects if inhaled.
- Fire may produce irritating and/or toxic gases.
- Some may burn but none ignite readily.
- Stable under normal temperatures and pressures.

10.2 Chemical stability

- May cause toxic effects if inhaled.
- Fire may produce irritating and/or toxic gases.
- Some may burn but none ignite readily.
- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- May cause toxic effects if inhaled.
- Fire may produce irritating and/or toxic gases.
- Some may burn but none ignite readily.
- Stable under normal temperatures and pressures.

10.4 Conditions to avoid

- Ignition source(heat, spark, flame, etc.).

10.5 Incompatible materials

- No data available

10.6 Hazardous decomposition products

- No data available

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) : In vitro / audio, 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

●Fish > PRODUCT : Not classified

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

- ABS resin : LC50 11.5 mg / l 96 hr Pimephales promelas, Source: ECOTOX

●Crustaceans > PRODUCT : Not classified

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

- ABS resin : No data available

●Aquatic Algae > PRODUCT : Not classified

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

- ABS resin : No data available

12.2 Persistence and degradability

●Persistence > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : 13.98 log Kow (@ 25 °C), Source: ECHA

- ABS resin : No data available

●Degradability > PRODUCT : Not classified

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

- ABS resin : No data available

●Biodegradation > PRODUCT : Not classified

- N,N'-ethylenedi(stearamide) : 15 (%) 28 day, Source: IUCLID

- ABS resin : No data available

12.3 Bioaccumulative potential > PRODUCT : Not classified

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

- ABS resin : No data available

12.4 Mobility in soil > PRODUCT : Not classified

- 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

- No data available.

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), Regulation 517/2014/EU on FGGs, 20 May 2014
 - 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) 2022/692, OJ L 129, 3 May 2022
 - 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 Reg 2021/2030/EU, 22 Nov 2021
 - Not applicable
- ETC regulation - EU. Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances (L286, Vol. 52, 31 October 2009)
 - Not applicable
- ETC regulation - EU. Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New Substances (L286, Vol. 52, 31 October 2009)
 - Not applicable
- ETC regulation - EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), 25 June 2019, as amended by Regulation 2021/277, 23 February 2021
 - Not applicable
- Global Inventory - EU. European Inventory of Existing Commercial Chemical Substances (EINECS)
 - N,N'-ethylenedi(stearamide)

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

16.1 Key literature references and sources for data

- ACGIH (2001)
- EU CLP
- EU IUCLID
- HSDB
- IUCLID
- NCIS Existing chemical safety test
- National Library of Medicine(NLM)
- OECD SIDS
- OECD SIDS, EU IUCLID
- OECD Screening Information Data Set(<http://cs3-hq.oecd.org/scripts/hpv/>)
- OECD TG 301 C . OECD SIDS
- CERI
- OECD TG404, OECD SIDS
- OECD TG423, Ministry of Environment Existing Chemical Safety Test(2001-2004)
- Quantitative Structure Activity Relation(QSAR)
- Directivw 87/302/EEC, GLP . IUCLID
- ECHA
- ECHA registration data
- ECOSAR
- ECOTOX
- EPI Suite
- EPISUITE

16.2 Issuing date : 2022-09-21

16.3 Indication of changes

Revision number : 1

Revision date : 2023-03-02

Revision history : According to new EU SDS regulation

16.4 Abbreviations and acronyms