LG Chem

Issuing(Revision) Date : 06/01/2024
Version number : 0

Safety Data Sheet(SDS)

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

1.1 Product identifier

Product identifier : ASA LI951 GRADE

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 : N/A

Uses advised against : N/A

1.3 Details of the supplier of the safety data sheet

○ Company name [Manufacturer]

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. EC No. EU REACH No.	Classification	SCL M-Factor	ATE	PCT(wt%)
2-Propenenitrile polymer with (1-methylethenyl)benzene	25747-74-4 No data available No data available	No data available	No data available No data available	No data available	60 ~ 70
2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile	26299-47-8 No data available No data available	No data available	No data available No data available	No data available	30 ~ 40

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

○ 4.1.2 Following skin contact
- Get medical aid immediately.
- In case of contact with material, immediately flush skin with running water for at least 15 minutes.
- Launder contaminated clothing and shoes before re-use.
- Remove and isolate contaminated clothing and shoes.

○ 4.1.3 Following inhalation
- Administer oxygen if breathing is difficult.
- Give artificial respiration if victim is not breathing.
- Move to fresh air.
- Seek immediate medical assistance.

○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.
- If unconscious but breathing, never give anything by mouth.

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.
- No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5. Firefighting measures

5.1 Extinguishing media

○Suitable extinguishing media
- Large fire: Water spray/fog, regular foam (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)

- No data available

5.3 Advice for firefighters

- Fire involving Tanks: ALWAYS stay away from tanks engulfed in fire.
- Fire involving Tanks: Cool containers with flooding quantities of water until well after fire is out.
- Fire involving Tanks: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- Move containers from fire area if you can do it without risk.
- Runoff may cause pollution.
- Substance may be transported hot.

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
- 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
- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

6.3.2 For cleaning up
- Clear spills immediately.
- Don't use a brush or compressed air for cleaning surfaces or clothing.

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

- CAUTION: High temperature.
- Caution: Dangerous fire hazard when exposed to heat, or flame, sparks.
- Please note that materials and conditions to be avoided.
- Use adequate machine for prevention when package handling.
- Wash thoroughly after handling.
- Wear an appropriate Personal protection. (See Exposure Controls/Personal Protection section.)

7.2 Conditions for safe storage, including any incompatibilities

- Choose a place that can be protected from strong oxidizers and acid.
- 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 ignitionsources

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
2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile	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			
2-Propenenitrile polymer with (1-methylethenyl)benzene	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/m3 (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

○ Eye/face protection
- Wear suitable protective goggles and face shields.

○ Respiratory protection
- Atmospheric levels should be maintained below the exposure guideline. For mostconditions, no respiratory protection should be needed; however, if material is heated orsprayed, use an approved air-purifying respirator. Use the following CE approved air-purifyingrespirator: Organic vapor cartridge with a particulate pre-filter, type AP2.

○ Skin protection

(i) Hand protection

- Use gloves chemically resistant to this material when prolonged or frequently repeatedcontact could occur. Use chemical resistant gloves classified under Standard EN374: Protectivegloves against chemicals and micro-organisms. Examples of preferred glove barrier materialsinclude: Butyl rubber. Polyethylene. Neoprene. Natural rubber ("latex"). Polyvinyl chloride("PVC" or "vinyl"). Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl alcohol ("PVA").Ethyl vinyl alcohol laminate ("EVAL"). When prolonged or frequently repeated contact mayoccur, a glove with a protection class of 4 or higher (breakthrough time greater than 120minutes according to EN 374) is recommended. When only brief contact is expected, a glovewith a protection class of 1 or higher (breakthrough time greater than 10 minutes according toEN 374) is recommended. NOTICE: The selection of a specific glove for a particular applicationand duration of use in a workplace should also take into account all relevant workplace factorssuch as, but not limited to: Other chemicals which may be handled, physical requirements(cut/puncture protection, dexterity, thermal protection), potential body reactions to glovematerials, as well as the instructions/specifications provided by the glove supplier.
- Wear suitable protective gloves.

(ii) Other

- No data available

○ Thermal hazards

- Wear appropriate protective clothing considering the physical and chemical properties ofchemicals.

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	No data available	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	No data available	No data available
Initial boiling point and boiling range	No data available	No data available
Melting point/freezing point	No data available	No data available
pH	No data available	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

- Containers may explode when heated.
- Fire may produce irritating and/or toxic gases.
- May cause toxic effects if inhaled.
- Some may burn, but not ignite easily.
- Stable under normal temperatures and pressures.

10.2 Chemical stability

- No hazardous reaction when handled and stored according to provisions
- Stable under normal temperatures and pressures.
- Under storage at normal ambient temperatures, the product is stable.

10.3 Possibility of hazardous reactions

- Stable under normal temperatures and pressures.

10.4 Conditions to avoid

- Exposure to elevated temperatures can cause product to decompose. Avoid moisture.

10.5 Incompatible materials

- Avoid contact with: Strong oxidizers.

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

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : LD50> 5000 mg / kg experimental species: Rat, (GE Specialty Chemicals)

●Acute toxicity(Dermal) > PRODUCT : Not classified

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : LD50> 2000 mg / kg experimental species: Rabbit, (GE Specialty Chemicals)

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

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : LD50> 2000 mg / kg experimental species: Rabbit, (GE Specialty Chemicals)

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

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

●Acute toxicity(Inhalation:Dust/mist) > PRODUCT : Not classified

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

○Skin corrosion/ irritation > PRODUCT : Not classified

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available

- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

○Serious eye damage/ irritation > PRODUCT : Not classified

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available

- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

○Respiratory or skin sensitisation > PRODUCT : Not classified

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available

- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

○Skin sensitization > PRODUCT : Not classified

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available

- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

○Carcinogenicity > PRODUCT : Not classified

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

○Germ cell mutagenicity > PRODUCT : Not classified

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

○Reproductive toxicity > PRODUCT : Not classified

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

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

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

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

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

○ Aspiration hazard > PRODUCT : Not classified

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

11.2. Information on other hazards

○ 11.2.1. Endocrine disrupting properties

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : According to Regulation(EU) 2017/2100 and 2018/605, the substance not affects to endocrine system.
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : According to Regulation(EU) 2017/2100 and 2018/605, the substance not affects to endocrine system.

○ 11.2.2. Other information

- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No other hazards have been identified
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No other hazards have been identified

SECTION 12. Ecological information

12.1 Toxicity > PRODUCT : Not classified

●Fish
- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

●Crustaceans
- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available
- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

●Aquatic Algae
- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available

- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

12.2 Persistence and degradability

●Persistence
- 2-Propenenitrile polymer with (1-methylethenyl)benzene : (Not applicable)

- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : (Notapplicable)

●Degradability
- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available

- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

●Biodegradation
- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available

- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No dataavailable

12.3 Bioaccumulative potential
- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available

- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

12.4 Mobility in soil
- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available

- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : No data available

12.5 Results of PBT and vPvB assessment
- 2-Propenenitrile polymer with (1-methylethenyl)benzene : NOT_APPLICABLE

- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : NOT_APPLICABLE

12.6 Endocrine disrupting properties
- 2-Propenenitrile polymer with (1-methylethenyl)benzene : According to Regulation(EU) 2017/2100 and 2018/605, the substance not affects to endocrine system.

- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : According to Regulation(EU) 2017/2100 and

12.7 Other adverse effects > PRODUCT : Not classified
- 2-Propenenitrile polymer with (1-methylethenyl)benzene : No data available

- 2-Propenoic acid butyl ester polymer with ethenylbenzene and 2-propenenitrile : 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
- No data available

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

+135-3858-6433 (GuangDong)
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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)

- Not applicable

15.2 Chemical Safety Assessment

Not applicable

SECTION 16. Other information

16.1 Key literature references and sources for data

- CERI
- OECD TG404, OECD SIDS
- OECD TG423, Ministry of Environment Existing Chemical Safety Test(2001-2004)
- Directivw 87/302/EEC, GLP . IUCLID
- QSAR
- Quantitative Structure Activity Relation(QSAR)
- SIDS
- ECHA
- ECHA registration data
- ECOSAR
- EPISUITE
- International Uniform ChemicaL Information Database(IUCLID)(http://ecb.jrc.it/esis)
- EU CLP
- EU IUCLID
- IUCLID
- NCIS Existing chemical safety test
- NLM

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- 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

16.2 Issuing date : 06/01/2024

16.3 Indication of changes

Revision number : 0

Revision date : 06/01/2024

Revision history : -

16.4 Abbreviations and acronyms