

Safety Data Sheet(SDS)

Print Date : 21-07-2026

Last revised date : 27-02-2026

1. Identification

1) Product identifier : STARON Solid Surface

2) Relevant identified uses of the substance or mixture and uses advised against

○ Relevant identified uses

Construction materials, Others(Kitchen top, counter top, interior wall, ect.)

○ Restrictions on use

Use for recommended use only

Do not use it for weapons manufacturing and related purposes.

3) Supplier information

○ Seller

Company name : Lotte Chemical Corporation

Address : 05551 Lotte World Tower, 300, Olympic-ro, Songpa-gu, Seoul, 05551 Rep. of KOREA

Telephone number :

Advanced Materials	+82-31-596-3114	Advanced Materials	+82-31-596-3598
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Emergency phone number

Yeosu Plant(Advanced Materials)	+82-61-689-1100	null	null
null	null	null	null

Fax number : +82-31-596-3179

2. Hazards identification

1) Hazard classification

- Not applicable

2) Allocation label elements

Hazard pictograms

- Not applicable

Signal word

- NONE

Hazard statements

- Not applicable

Precautionary statements

- Not applicable

3) Other hazards:

According to experience and information provided, this product does not affect harmful effects when using and handling it as a regulation.

3. Composition/Information on ingredients

Chemical name	Common name	CAS No.	Content(wt%)
Aluminium hydroxide	aluminium hydroxide	21645-51-2	>=55 ~ <=65
2-Methyl-2-propenoic acid methyl ester homopolymer	Polymethyl methacrylate	9011-14-7	>=35 ~ <=45
Pigment & additives	-		>=1 ~ <=2

4. First-aid measures

1) Following eye contact

- Call a physician immediately.

2) Following skin contact

- Get medical attention if irritation develops and persists.
- Remove contaminated clothing and shoes.

3) Following inhalation

- If symptoms persist, call a physician.
- Move to fresh air.

4) Following ingestion

- If accidentally swallowed obtain immediate medical attention.

5) Delayed and immediate effects and also chronic effects from short and long term exposure

No data available

6) Advice to physician

- In the case of accident or if you feel unwell, seek medical advice immediately.

5. Fire-Fighting measures

1) Suitable (and unsuitable) extinguishing media

○ Suitable extinguishing media

- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

○ Unsuitable extinguishing media

- Do not use a solid water stream as it may scatter and spread fire.

- 2) Special hazards arising from the substance or mixture
 - Pyrolytic product
 - Hazardous decomposition products due to incomplete combustion
 - Risk of fire and explosion
 - Heating or fire can release toxic gas.
 - Other
 - May cause toxic effects if inhaled.
- 3) Special protective equipment for firefighters
 - In the event of fire, wear self-contained breathing apparatus.

6. Accident release measures

- 1) Personal precautions, protective equipment and emergency procedures
 - Avoid dust formation.
- 2) Environmental precautions
 - Try to prevent the material from entering drains or water courses.
- 3) Methods and materials for containment and cleaning up
 - Keep in suitable, closed containers for disposal.
 - Pick up and arrange disposal without creating dust.

7. Handling and storage

- 1) Precautions for safe handling
 - For personal protection see section 8.
 - Handling refer to engineering control/personal protection section.
 - When fabricating such as thermoforming, cutting and sanding, wear a proper protective gears.
- 2) Conditions for safe storage (including any incompatibilities)
 - Please note that materials and conditions to be avoided.
 - Store in a dry place. Store in a closed container.

8. Exposure controls & personal protection

- 1) Chemical exposure limits, Biological exposure standard
 - Contains no substances with occupational exposure limit values.
- 2) Appropriate engineering controls
 - Ensure adequate ventilation and exhaust ventilation at the workplace.
- 3) Personal protective equipment
 - Respiratory protection
 - If you have a direct contact or exposed to the material, wear the appropriate form of respiratory protection certified.
 - Eye protection

- If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.
- Hand protection
 - Wear chemical safety gloves.
- Skin protection
 - Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

9. Physical and chemical information

Property name	Values	Source
Appearance		
Physical state	solid	
Color	Various	
Odor	none	
Odor threshold	Not applicable	
pH	Not applicable	
Melting point/freezing point	Not applicable	
Initial boiling point and boiling range(°C)	Not applicable	
Flash point(°C)	No data	
Evaporation rate	Not applicable	
Flammability(solid, gas)	Not applicable	
Upper/lower flammability or explosive limits	Not applicable	
Vapour pressure	Not applicable	
Solubility(ies)	Not soluble in water	
Vapour density	Not applicable	
Relative density	1.6~1.8 (water=1)	
n-octanol/water partition coefficient	Not applicable	
Auto ignition temperature	No data	
Decomposition temperature	No data	
Viscosity(mm²/s, 40°C)	Not applicable	
Molecular weight(mass)	No data	
Specific gravity	1.6~1.8	

10. Stability and hazardous reactivity

1) Chemical stability and Possibility of hazardous reactions

- No decomposition if stored and applied as directed.
- Some may burn but none ignite readily.
- Stable at normal ambient temperature and pressure.
- When cutting by saw or router, friction heat reach up to 300°C temperature. Methyl methacrylate monomer may be released. Dust may be flashed under ignition temp.

2) Conditions to avoid

- Follow precautionary advice and avoid incompatible materials and conditions

3) Incompatible materials

- Combustible material

4) Hazardous decomposition products

- This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regula

11. Toxicological information

1) Information on the likely routes of exposure

- No data available

2) Delayed and immediate effects and also chronic effects from short and long term exposure

○ Acute toxicity

● Acute toxicity(Oral) PRODUCT : Not classified

- Aluminium hydroxide

: LD50 >2000 mg/kg Test species: Rat, (Administration route: Gavage, female, OECD TG 423, GLP)

● Acute toxicity(Dermal) PRODUCT : Not classified

- No data available

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

- No data available

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

- No data available

● Acute toxicity(Inhalation:Dust/mist) PRODUCT : Category 4(ATEmix = 1.900mg/L)

- Aluminium hydroxide

: LC50 7.6 mg/l 1 hr Test species: Rat, (male, OECD TG 403)

○ Skin corrosion/irritation PRODUCT : Not classified

- Aluminium hydroxide

: Edema score: 0/4, non-irritating, Rabbit, OECD TG 404

- 2-Methyl-2-propenoic acid methyl ester homopolymer

: Causes skin irritation

○ Serious eye damage/eye irritation PRODUCT : Not classified

- Aluminium hydroxide

: No irritation, Rabbit, Corneal opacity (0), Iris (0), Conjunctival hyperemia (0.2), Conjunctival edema (0), Fully reversible within 48 hours, OECD TG 405, No hypersensitivity, Mouse, in vivo, male

- 2-Methyl-2-propenoic acid methyl ester homopolymer

: Causes eye irritation

○ Respiratory sensitization PRODUCT : Not classified

- No data available

○ Skin sensitization PRODUCT : Not classified

- Aluminium hydroxide

: No hypersensitivity, Guinea pig, GLP, male, Guinea pig maximization test (GMPT): Dose levels: 50 and 75%, Response: 0/10, OECD TG 406

○ Carcinogenicity PRODUCT : Not classified

- 2-Methyl-2-propenoic acid methyl ester homopolymer

: 3 (IARC)

○ Germ cell mutagenicity PRODUCT : Not classified

- Aluminium hydroxide

: in vitro - Chromosomal aberration test using mammalian cells: positive (lymphocytes; no metabolic activity), OECD TG 473

○ Reproductive toxicity PRODUCT : Not classified

- Aluminium hydroxide

: Useful information on the developmental and neurotoxic effects of prenatal and chronic postnatal exposure to high doses of aluminum (30 mg Al/kg bw/day, 100 mg Al/kg bw/day, 300 mg Al/kg bw/day) in rats. It is difficult to distinguish between postweaning developmental toxicity and direct toxicity because the F1 generation was dosed throughout the postweaning period. Results from a 364-day cohort showed clear and consistent effects on postweaning body weight in the high-dose Al-citrate group. Effects of Na-citrate were observed in female pups. Urinary tract lesions were observed more frequently in males at higher doses. Results showed no evidence of effects on memory or learning. Consistent results were observed for threshold effects, forelimb and hindlimb grip strength, supported by less consistent observed effects in the 100 mg Al/kg bw/day group on defecation, urination, urinary tract lesions at necropsy, body weight, and albumin/globulin ratio. No dose-related differences in FOB traits were observed in newborn and juvenile pups. Repeated dose toxicity of aluminum LOAEL = 1000 mg Al/kg bw/day, no Al-based LOAEL/NOAEL can be proposed based on the sexual maturation results in this study, as effects were observed in both the high-dose Al-citrate and Na-citrate groups, Differences in body weight of weaned horses compared to the control group occurred in the high-dose Al-citrate and sodium citrate groups and are considered to be dose-related, but the role of Al is unclear, Relative differences between the high-dose Al-citrate and Na-citrate groups may be related to differences in fluid consumption, rat, equivalent or similar to Guideline: OECD TG 426 and OECD TG 452, GLP

- Specific target organ toxicity single exposure PRODUCT : Not classified
 - Aluminium hydroxide
 - : Oral: No clinical signs of toxicity were observed after treatment or during the 14-day observation period. Soft stools were observed in all animals only on the day of dosing. No similar clinical signs were observed after the first day of the observation period / No pathological treatment effects (rats / female / OECD TG 423 / GLP). Inhalation: Observed clinical signs were consistent with respiratory distress. Surviving animals were described as exhibiting "slight" toxic effects and recovering well by the end of the 14-day observation period. More discoloration was observed on the lung surfaces of treated animals compared to control animals. A "slight" increase in the number of lung lesions in test animals was also reported, but no individual data or further details were provided. Dead animals were found to have a white gel in the trachea and stomach. Their stomachs were also filled with gas and enlarged. The liver and kidneys did not differ significantly between treated and control animals on gross examination (rats / male / equivalent or similar to Guideline: OECD TG 403).
 - 2-Methyl-2-propenoic acid methyl ester homopolymer
 - : Irritating to the airways when inhaled
- Specific target organ toxicity repeated exposure PRODUCT : Not classified
 - Aluminium hydroxide
 - : Oral (chronic): Based on oral exposure in rats, the LOAEL for aluminum toxicity was established as 1075 mg AlCitrate/kg bw/day (100 mg Al/kg bw/day) (sublethal effects, fairly consistent results observed for forelimb and hindlimb grip strength), Rat, OECD TG 426 and OECD TG 452, GLP Inhalation (short-term repeated): Results of the study provided clear evidence of a widespread and inflammatory response in positive control (quartz-treated) animals, Rat
- Aspiration hazard PRODUCT : Not classified
 - No data available

12. Ecological information

1) Ecotoxicity

- Fish PRODUCT : Hazardous to the aquatic environment, long-term (chronic) Chronic 2
 - Aluminium hydroxide
 - : NOEC > 50 mg/l 96 hr *Ictalurus punctatus*|(flow-through, freshwater, GLP)
- Crustaceans PRODUCT : Hazardous to the aquatic environment, long-term (chronic) Chronic 2
 - Aluminium hydroxide
 - : NOEC > 22.6 mg/l 96 hr *Acrionuria* sp. |(exponential, freshwater)
- Aquatic algae PRODUCT : Hazardous to the aquatic environment, long-term (chronic) Chronic 2
 - Aluminium hydroxide
 - : EC10 0.153 mg/l 72 hr *Pseudokirchneriella subcapitata* |(OECD TG 201, semi-static, freshwater)

2) Persistence and degradability

- Degradability PRODUCT : Not classified
 - No data available

- Biodegradation PRODUCT : Not classified
No data available
- 3) Bioaccumulative potential
 - n-octanol water partition coefficient PRODUCT : Not classified
No data available
 - Bioconcentration factor(BCF) PRODUCT : Not classified
No data available
- 4) Mobility in soil PRODUCT : Not classified
No data available
- 5) Other adverse effects PRODUCT : Not classified
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)
 - Dispose of in accordance with local regulations.
 - Send to a licensed waste management company.

14. Transport information

- 1) UN No. : Not applicable
- 2) Proper shipping name : Not applicable
- 3) Hazard class : Not applicable
- 4) Packing group : Not applicable
- 5) Marine pollutant : Not applicable
- 6) Special precautions for user related to transport or transportation measures :
 - 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
- Maritime transport in bulk according to IMO instruments :
 - Not applicable

15. Regulatory information

Australia Industrial Chemicals Notification and Assessment Act

- Inventory - Australia - Inventory of Industrial Chemicals (AIIC)
 - Aluminium hydroxide : Applicable
 - 2-Methyl-2-propenoic acid methyl ester homopolymer : Applicable

China Inventory of Existing Chemical Substances (IECSC)

- Inventory - China - Inventory of Existing Chemical Substances (IECSC)
 - Aluminium hydroxide : Applicable
 - 2-Methyl-2-propenoic acid methyl ester homopolymer : Applicable

92/32/EEC

- Not applicable

European Union Official Journal of the European Communities 15 June 1990 - Annex Based on Article 13 of Directive 67/548/EEC Amended by Directive 79/831/EEC

- Inventory - European Union - European Inventory of Existing Commercial Chemical Substances (EINECS)
 - Aluminium hydroxide : Applicable
 - Not applicable

Japan - ISHL Ordinance Hazardous Substances Whose Names Are to be Indicated on the Label

- Not applicable

Japan Law Concerning the Examination and Regulations of Manufacture, etc. of Chemical Substances

- Inventory - Japan - Existing and New Chemical Substances (ENCS)
 - Aluminium hydroxide : Applicable
 - 2-Methyl-2-propenoic acid methyl ester homopolymer : Applicable

New Zealand Environmental Protection Authority, Inventory of Chemicals

- Inventory - New Zealand - Inventory of Chemicals (NZIoC)

- Aluminium hydroxide : Applicable
- 2-Methyl-2-propenoic acid methyl ester homopolymer : Applicable

Turkey Regulation on Inventory and Control of Chemicals

- Not applicable

Taiwan Chemical Substance Inventory

- Inventory - Taiwan - Taiwan Chemical Substance Inventory (TCSI)
- Aluminium hydroxide : Applicable
- 2-Methyl-2-propenoic acid methyl ester homopolymer : Applicable

U.S. Toxic Substances Control Act

- Inventory - United States - Section 8(b) Inventory (TSCA)
- Aluminium hydroxide : Applicable
- 2-Methyl-2-propenoic acid methyl ester homopolymer : Applicable

Vietnam National Chemicals Inventory (NCI)

- Inventory - Vietnam - National Chemicals Inventory (NCI) (DRAFT)
- Aluminium hydroxide : Applicable
- 2-Methyl-2-propenoic acid methyl ester homopolymer : Applicable

Note

- Not applicable

16. Other information

1) Reference

NCIS, KOSHA, Montreal Protocol, ECHA, OECD SIDS, EU IUCLID, HSDB(PubChem), NITE, NTP, ACGIH, IARC, NIOSH, ChemIDplus, EPA, EPI Suite, INCHEM

2) Issue date : 19-10-2023

3) Revision date

- Revised date count : 2-2
- Last revised date : 27-02-2026

4) Other

ACGIH : American Conference of Governmental Industrial Hygienists
 ADR : Agreement Concerning the International Carriage of Dangerous Goods by Road
 ATE : The Acute Toxicity Estimate
 ECHA : European Chemicals Agency

EPA : United States Environmental Protection Agency
EPI Suite : The Estimation Programs Interface for Windows
EU IUCLID : International Uniform Chemical Information Database
HSDB : Hazardous Substances Data Bank
IARC : International Agency for Research on Cancer
IATA : International Air Transport Association
IMDG : International Maritime Dangerous Goods Codes
INCHEM : Internationally Peer Reviewed Chemical Safety Information
M-Factor : The Multiplication Factor
NIOSH : National Institute of Occupational Safety and Health
NITE : National Institute of Technology and Evaluation(JAPAN)
NTP : National Toxicology Program
SCL : Specific Concentration Limit
OECD SIDS : Organization for Economic Co-operation and Development Screening Information Dataset
GHS/EN