SARTOMER®

SARET® SR519HP

1. PRODUCT AND COMPANY IDENTIFICATION

Company

Arkema Inc. 900 First Avenue

King of Prussia, Pennsylvania 19406

Sartomer

Customer Service Telephone Number: (800) SARTOMER

(Monday through Friday, 8:00 AM to 5:00 PM EST)

Emergency Information

Transportation: CHEMTREC: (800) 424-9300

(24 hrs., 7 days a week)

Medical: Rocky Mountain Poison Center: (866) 767-5089

(24 hrs., 7 days a week)

Product Information

Product name: SARET® SR519HP

Synonyms: HIGH PERFORMANCE TRIFUNCTIONAL COAGENT

Molecular formula: Complex mixture

Chemical family: Mixture

Product use: elastomers, Rubber products, Plastic materials, Sealant

SECTION 2: HAZARDS IDENTIFICATION

Emergency Overview

Color:light yellowPhysical state:liquidOdor:acrylic-like

*Classification of the substance or mixture:

Skin irritation, Category 2, H315 Eye irritation, Category 2A, H319 Skin sensitisation, Category 1, H317 Carcinogenicity, Category 2, H351 Acute aquatic toxicity, Category 1, H400 Chronic aquatic toxicity, Category 1, H410

^{*}For the full text of the H-Statements mentioned in this Section, see Section 16.



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GHS-Labelling

Hazard pictograms:







Signal word:

Warning

Hazard statements:

H315: Causes skin irritation.

H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H351: Suspected of causing cancer.

H410: Very toxic to aquatic life with long lasting effects.

Supplemental Hazard Statements:

Processing may release vapors and/or fumes which cause eye, skin and respiratory tract irritation.



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Precautionary statements:

Prevention:

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P261 : Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P264: Wash skin thoroughly after handling.

P272: Contaminated work clothing should not be allowed out of the workplace.

P273: Avoid release to the environment.

P280: Wear eye protection and face protection.

P280: Wear protective gloves.

P281: Use personal protective equipment as required.

Response:

P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P308 + P313 : IF exposed or concerned: Get medical advice/ attention.

P333 + P313 : If skin irritation or rash occurs: Get medical advice/ attention.

P337 + P313 : If eye irritation persists: Get medical advice/ attention.

P362: Take off contaminated clothing and wash before reuse.

P391: Collect spillage.

Storage:

P405: Store locked up.

Disposal:

P501: Dispose of contents or container to an approved waste disposal plant.

Supplemental information:

Potential Health Effects:

If swallowed may cause irritation of the digestive tract. Possible cross sensitization with other acrylates and methacrylates. Effects due to processing releases or residual monomer: Irritating to eyes, respiratory system and skin.

Prolonged or repeated exposure may cause: headache, drowsiness, nausea, weakness, (severity of effects depends on extent of exposure).

Other:

This product may release fume and/or vapor of variable composition depending on processing time and temperature.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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| Chemical Name | CAS-No. | Wt/Wt | GHS Classification** |
|---|--------------|---------------------|---------------------------------------|
| 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester | 15625-89-5 | >= 80 - <= 100 % | H315, H319, H317, H400, H410, H351 |
| Amine salt | Proprietary* | >= 1 - < 20 % | Not classified |

^{*}The specific chemical identity is withheld because it is trade secret information of Arkema Inc.

SECTION 4: FIRST AID MEASURES

4.1. Description of necessary first-aid measures:

Inhalation:

If inhaled, remove victim to fresh air.

Skin:

In case of contact, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Ingestion:

If swallowed, DO NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed:

For most important symptoms and effects (acute and delayed), see Section 2 (Hazard Statements and Supplemental Information if applicable) and Section 11 (Toxicology Information) of this SDS.

4.3. Indication of any immediate medical attention and special treatment needed:

Unless otherwise noted in Notes to Physician, no specific treatment noted; treat symptomatically.

^{**}For the full text of the H-Statements mentioned in this Section, see Section 16.



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SECTION 5: FIREFIGHTING MEASURES

Extinguishing media (suitable):

Water spray, Carbon dioxide (CO2), Foam, Dry chemical

Protective equipment:

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent).

Further firefighting advice:

Fight fire from a protected location.

Cool closed containers exposed to fire with water spray.

Closed containers of this material may explode when subjected to heat from surrounding fire.

Do not allow run-off from fire fighting to enter drains or water courses.

Fire fighting equipment should be thoroughly decontaminated after use.

Fire and explosion hazards:

When burned, the following hazardous products of combustion can occur: $\frac{1}{2}$

Carbon oxides

Hazardous organic compounds

Polymerization is exothermic and can degenerate into an uncontrolled reaction.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, Emergency procedures, Methods and materials for containment/clean-up:

Prevent further leakage or spillage if you can do so without risk. Ventilate the area. Avoid generation of vapors. Contain and collect spillage with non-combustible absorbent material such as clean sand, earth, diatomaceous earth or non-acidic clay and place into suitable properly labeled containers for prompt disposal. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Protective equipment:

Appropriate personal protective equipment is set forth in Section 8.

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SECTION 7: HANDLING AND STORAGE

Handling

General information on handling:

Do not taste or swallow.

Avoid breathing vapor or mist.

Avoid contact with skin, eyes and clothing.

Keep container closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

Emptied container retains vapor and product residue.

Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

Storage

General information on storage conditions:

Keep in a dry, cool place. Store in closed containers, in a secure area to prevent container damage and subsequent spillage. Store out of direct sunlight in a cool well-ventilated place. Keep stabilizer levels constant to avoid explosive polymerization. An air space is required above the liquid in all containers; avoid storage under an oxygen-free atmosphere.

Storage stability - Remarks:

Inhibitor levels should be maintained. The typical shelf-life for this product is 6 months.

Storage incompatibility - General:

Store separate from: Strong oxidizing agents Strong reducing agents Free radical generators Inert gas Oxygen scavenger. Peroxides

Temperature tolerance - Do not store below:

32 °F (0 °C)

Temperature tolerance - Do not store above:

100 °F (38 °C)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne Exposure Guidelines:

2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (15625-89-5)

US. OARS. WEELs Workplace Environmental Exposure Level Guide, as amended

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Skin designation

Remarks: Can be absorbed through the skin.

Time weighted average 1 mg/m3

Remarks: Avoid skin or eye contact with liquids or aerosols.

Remarks: Listed

Only those components with exposure limits are printed in this section. Limits with skin contact designation above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required. Limits with a sensitizer designation above mean that exposure to this material may cause allergic reactions.

Engineering controls:

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

Respiratory protection:

Avoid breathing vapor or mist. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Skin protection:

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Avoid natural rubber gloves. Wear chemical goggles, a face shield, and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing immediately and wash before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling.

Eye protection:

Where there is potential for eye contact, wear chemical goggles and have eye flushing equipment immediately available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Color: light yellow

Physical state: liquid

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Odor: acrylic-like

Odor threshold: No data available

Flash point > 201 °F (94 °C) (Method: Estimated.)

Lower flammable limit

(LFL):

No data available

Upper flammable limit

(UFL):

No data available

pH: ~ 7

Density: 1.1 g/cm3 (77 °F (25 °C))

Specific Gravity (Relative

density):

1.1 (77 °F(25 °C))Water=1 (liquid)

Vapor density: No data available.

Boiling point/boiling

range:

No data available

Melting point/range: No data available.

Freezing point: No data available.

Evaporation rate: No data available

Solubility in water: negligible

Viscosity, dynamic: 110 - 120 CPS 77 °F (25 °C) (Method: Brookfield)

Oil/water partition

coefficient:

(No data available)

Thermal decomposition: No data available

Flammability: See GHS Classification in Section 2 if applicable

SECTION 10: STABILITY AND REACTIVITY



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Stability:

This material is chemically stable under normal and anticipated storage, handling and processing conditions. However, this material can undergo hazardous polymerization.

Hazardous reactions:

Hazardous polymerisation may occur.

Polymerization is exothermic and can degenerate into an uncontrolled reaction.

Materials to avoid:

Strong oxidizing agents Strong reducing agents Free radical generators Inert gas Oxygen scavenger. Peroxides

Conditions / hazards to avoid:

This material polymerizes exothermically in the presence of heat, contamination, oxygen free atmosphere, free radicals, peroxides and inhibitor depletion liberating heat. Avoid direct sunlight. Do NOT expose to ultraviolet light.

Hazardous decomposition products:

Thermal decomposition giving flammable and toxic products:

Carbon oxides

Acrylates

Hazardous organic compounds

SECTION 11: TOXICOLOGICAL INFORMATION

Data on this material and/or its components are summarized below.

Data for SARET® SR519HP

Acute toxicity

Oral:

May be harmful if swallowed. Acute toxicity estimate = 3,964 mg/kg.

Data for 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (15625-89-5)

Acute toxicity

Oral:

May be harmful if swallowed. (rat) LD50 = 3,680 mg/kg.

Dermal:

Practically nontoxic. (rabbit) LD50 = 5,170 mg/kg.

Inhalation:

No deaths occurred. (rat) 6 h LC0 > 0.55 mg/l. (vapor)

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Skin Irritation:

Causes mild skin irritation. (rabbit) (4 h)

Causes skin irritation. (rabbit) (6 h) (Repeated skin exposure)

Eye Irritation:

Causes serious eye irritation. (rabbit)

Skin Sensitization:

May cause an allergic skin reaction. Guinea pig maximization test. Skin allergy was observed. (Strong sensitizer)

Not a sensitizer. Mouse ear swelling assay. No skin allergy was observed.

Repeated dose toxicity

Repeated dermal administration to rabbit / affected organ(s): skin / signs: Local irritation / No adverse systemic effects reported.

Repeated oral administration to rat / No adverse systemic effects reported. (Local irritation of the stomach)

Carcinogenicity

Chronic dermal administration to mouse / affected organ(s): liver, uterus / Increase in tumor incidence was reported.

Classified by the International Agency for Research on Cancer as: Group 2B: Possibly carcinogenic to humans.

Genotoxicity

Assessment in Vitro:

Both positive and negative responses for genetic changes were observed in laboratory tests using: bacteria, animal cells

Genetic changes were observed in a laboratory test using: human cells

Genotoxicity

Assessment in Vivo:

No genetic changes were observed in a laboratory test using: mice

Developmental toxicity

Exposure during pregnancy. Oral (rabbit) / No birth defects were observed.

Exposure during pregnancy. Oral (rat) / No birth defects were observed. (at doses that produce effects in mothers)

Reproductive effects

Reproductive/Developmental Effects Screening Assay. Oral (rat) / No toxicity to reproduction.

Human experience

Skin contact:

Skin: Skin allergy was observed. Sensitization described in isolated cases. (based on reports of occupational

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exposure to workers)

SECTION 12: ECOLOGICAL INFORMATION

Chemical Fate and Pathway

Data on this material and/or its components are summarized below.

Data for 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (15625-89-5)

Biodegradation:

Readily biodegradable. (28 d) biodegradation 86 %

Octanol Water Partition Coefficient:

log Pow: > 4

Ecotoxicology

Data on this material and/or its components are summarized below.

Data for 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (15625-89-5)

Aquatic toxicity data:

Very toxic. Danio rerio (zebra fish) 96 h LC50 = 0.87 mg/l

Aquatic invertebrates:

Harmful. Daphnia magna (Water flea) 48 h EC50 = 19.9 mg/l

Algae:

Toxic. Desmodesmus subspicatus (green algae) 96 h ErC50 = 4.86 mg/l

Microorganisms:

Respiration inhibition / Activated sludge 30 min EC20 = 625 mg/l

Chronic toxicity to aquatic plants:

Practically nontoxic. Growth inhibition / Desmodesmus subspicatus (green algae) 72 h ErC10 = 1.9 mg/l

SECTION 13: DISPOSAL CONSIDERATIONS

Waste disposal:

Disposal via incineration is recommended. Dispose of in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

Take appropriate measures to prevent release to the environment.

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SECTION 14: TRANSPORT INFORMATION

US Department of Transportation (DOT)

UN Number : 3082

Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.

Technical name : (Trimethylolpropane Triacrylate)

Class : 9
Packaging group : III
Marine pollutant : yes

International Maritime Dangerous Goods Code (IMDG)

UN Number : 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Technical name : (TRIMETHYLOLPROPANE TRIACRYLATE)

Class : 9
Packaging group : III
Marine pollutant : yes

Flash point : $> 201 \, ^{\circ}\text{F} (94 \, ^{\circ}\text{C})$

SECTION 15: REGULATORY INFORMATION

Chemical Inventory Status

US. Toxic Substances Control Act **TSCA** The components of this product are all on the Active TSCA Inventory. Canadian Domestic Substances List (DSL) DSL This product contains one or several components that are not on the Canadian DSL nor NDSL lists. China. Inventory of Existing Chemical Substances in IECSC (CN) Not all components of this product are China (IECSC) listed or exempted Japan. ENCS - Existing and New Chemical All components of this product are listed ENCS (JP) Substances Inventory or exempted Japan. ISHL - Inventory of Chemical Substances All components of this product are listed ISHL (JP) or exempted Korea. Korean Existing Chemicals Inventory (KECI) KECI (KR) Not all components of this product are listed or exempted Philippines Inventory of Chemicals and Chemical Not all components of this product are PICCS (PH) Substances (PICCS) listed or exempted Australian Inventory of Industrial Chemicals AU AIICL Not all components of this product are listed or exempted



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Taiwan Chemical Substance Inventory (TCSI)

TCSI

Not all components of this product are

listed or exempted

United States - Federal Regulations

SARA Title III - Section 302 Extremely Hazardous Chemicals:

The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

SARA Title III - Section 311/312 Hazard Categories:

Acute Health Hazard, Reactivity Hazard, Chronic Health Hazard

SARA Title III - Section 313 Toxic Chemicals:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):

The components in this product are either not CERCLA regulated, regulated but present in negligible concentrations, or regulated with no assigned reportable quantity.

United States - State Regulations

New Jersey Right to Know

No components are subject to the New Jersey Right to Know Act.

Pennsylvania Right to Know

Chemical name

1,4-Benzenediol

| 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester | 15625-89-5 |
|---|-------------|
| Amine salt | Proprietary |
| 2-Propenoic acid | 79-10-7 |
| Benzene, methyl- | 108-88-3 |

Product code: FP17293-P Version 2.1 Issued on: 09/16/2022 Page: 13 / 15

CAS-No.

123-31-9

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Pennsylvania Right to Know - Environmentally Hazardous Substance(s)

<u>Chemical name</u> <u>CAS-No.</u>

 2-Propenoic acid
 79-10-7

 Benzene, methyl 108-88-3

 1,4-Benzenediol
 123-31-9

California Prop. 65

WARNING! This product contains a chemical known to the State of California to cause cancer.

<u>Chemical name</u> 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2- 15625-89-5

propenyl)oxy]methyl]-1,3-propanediyl ester

1,2-Benzenediol 120-80-9

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Chemical nameCAS-No.Benzene, methyl-108-88-3

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.H351 Suspected of causing cancer.H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Latest Revision(s):

 Reference number:
 200003841

 Date of Revision:
 09/16/2022

 Date Printed:
 09/16/2022

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before commercialization. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement. See SDS for Health & Safety Considerations.

Arkema has implemented a Medical Policy regarding the use of Arkema products in Medical Devices applications that are in contact with the body or circulating bodily fluids (http://www.arkema.com/en/social-responsibility/responsible-product-management/medical-device-policy/index.html) Arkema has designated Medical grades to be used for such Medical Device applications. Products that have not been designated as Medical grades are not authorized by Arkema for use in Medical Device applications that are in contact with the body or circulating bodily fluids. In addition, Arkema strictly prohibits the use of any Arkema products in Medical Device applications that are implanted in the body or in contact with bodily fluids or tissues for greater than 30 days. The Arkema trademarks and the Arkema name shall not be used in conjunction with customers' medical devices, including without limitation, permanent or temporary implantable devices, and customers shall not represent to anyone else, that Arkema allows, endorses or permits the use of Arkema products in such medical devices.

It is the sole responsibility of the manufacturer of the medical device to determine the suitability (including biocompatibility) of all raw materials, products and components, including any medical grade Arkema products, in order to ensure that the final end-use product is safe for its end use; performs or functions as intended; and complies with all applicable legal and regulatory requirements (FDA or other national drug agencies). It is the sole responsibility of the manufacturer of the medical device to conduct all necessary tests and inspections and to evaluate the medical device under actual end-use requirements and to adequately advise and warn purchasers, users, and/or learned intermediaries (such as physicians) of pertinent risks and fulfill any postmarket surveillance obligations. Any decision regarding the appropriateness of a particular Arkema material in a particular medical device should be based on the judgment of the manufacturer, seller, the competent authority, and the treating physician.