SARTOMER

SAFETY DATA SHEET

SARET® SR522 D

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, 8:30 AM to 5:30 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® SR522 D

Synonyms: Acrylic ester dispersion w/scorth retardant

Molecular formula: Complex mixture

Chemical family: Mixture

Product use: rubber industry, Plastic materials industry

2. HAZARDS IDENTIFICATION

Emergency Overview

Color: off-white
Physical state: solid
Form: powder
Odor: acrylic-like

*Classification of the substance or mixture:

Skin irritation, Category 2, H315 Eye irritation, Category 2A, H319 Skin sensitisation, Category 1, H317 Chronic aquatic toxicity, Category 2, H411

*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.

H411: 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. May form combustible dust concentrations in air.

Precautionary statements:

Prevention:

P261: Avoid breathing 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/ face protection.

P280 : Wear protective gloves.

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.

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.

Disposal:

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

Supplemental information:

Potential Health Effects:

Possible cross sensitization with other acrylates and methacrylates. Effects due to processing releases: Irritating to eyes, respiratory system and skin.

Prolonged or repeated exposure may cause: headache, drowsiness, nausea, weakness, (severity of effects



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depends on extent of exposure).

Other:

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Wt/Wt	GHS Classification**
Acrylate ester	Proprietary*	>= 60 - <= 100 %	H315, H317, H319
Silica gel, pptd., crystfree	112926-00-8	>= 10 - < 30 %	Not classified
2,6-di-tert-butyl-alpha-dimethylamino-p- cresol	88-27-7	>= 1 - < 5 %	H303, H319, H317, H400, H410

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

4. FIRST AID MEASURES

Inhalation:

If inhaled, remove victim to fresh air.

Skin

In case of contact, immediately flush skin with plenty of water. Get medical attention. Remove contaminated clothing and shoes. 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.

5. FIREFIGHTING MEASURES

Extinguishing media (suitable):

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

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



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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.

Fire fighting equipment should be thoroughly decontaminated after use.

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

Do not use a solid stream of water.

A solid stream of water can cause a dust explosion.

Fire and explosion hazards:

When burned, the following hazardous products of combustion can occur:

Carbon oxides

Hazardous organic compounds

Polymerization is exothermic and can degenerate into an uncontrolled reaction.

Dust clouds generated during handling and/or storage can form explosive mixtures with air. Dust explosion characteristics vary with the particle size, particle shape, moisture content, contaminants, and other variables. Note: Check that all equipment is properly grounded and installed to satisfy electrical classification requirements. As with any dry material, pouring this material or allowing it to free-fall or to be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or of any flammable materials which may come into contact with the material or its container.

6. ACCIDENTAL RELEASE MEASURES

In case of spill or leak:

Prevent further leakage or spillage if you can do so without risk. Ventilate the area. Avoid dust formation and dispersal of dust in the air. Sweep or scoop up using non-sparking tools and place into suitable properly labeled containers for prompt disposal. The sweepings should be wetted down with water. 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. Implement workplace practices such that dusts are not allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

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7. HANDLING AND STORAGE

Handling

General information on handling:

Avoid breathing dust.

Avoid contact with skin, eyes and clothing.

Wash thoroughly after handling.

Emptied container retains product residue.

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

Keep away from heat, sparks and flames.

Keep container closed.

Avoid creating dust in handling, transfer or clean up.

Prevent dust accumulation.

Implement routine housekeeping practices to ensure that dusts do not accumulate on surfaces.

Check that all equipment is properly grounded and installed to satisfy electrical classification requirements.

Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.

Container hazardous when empty.

RESIDUAL DUSTS MAY EXPLODE ON IGNITION.

DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.

Improper disposal or reuse of this container may be dangerous and/or illegal.

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 in well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly grounded and installed to satisfy electrical classification requirements. Static electricity may accumulate when transferring material. All metal and groundable storage containers, including but not limited to drums, cylinders, Returnable Intermodal Bulk Containers (RIBCs) and Class C Flexible Intermodal Bulk Containers (FIBCs) must be bonded and grounded during filling and emptying operations. Observe all federal, state and local regulations and National Fire Protection Association (NFPA) Codes, which pertain to the specific local conditions of storage and use, including NFPA 654.

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)

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Temperature tolerance - Do not store above: 100 °F (38 °C)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Airborne Exposure Guidelines:

Silica gel, pptd., cryst.-free (112926-00-8)

US. OSHA Table Z-3 (29 CFR 1910.1000)

Time weighted average 20millions of particles per cubic foot of air

Time weighted average 0.8 mg/m3

Remarks: The exposure limit is calculated from the

equation, 80/(%SiO2), using a value of 100% SiO2. Lower values of % SiO2 will give higher

exposure limits.

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.

Check that all dust control equipment such as local exhaust ventilation, material transport systems, and airmaterial separation devices involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Isolation devices may be appropriate to prevent propagation from one unit to another. Ensure that dust-handling systems are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Consult ACGIH ventilation manual, NFPA Standard 91 and NFPA Standard 654 for design of exhaust system and safe handling.

Respiratory protection:

Avoid breathing dust. 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 recommended). 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. Rinse immediately if skin is contaminated. Wash contaminated clothing and clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash

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thoroughly after handling.

Eye protection:

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Color: off-white

Physical state: solid

Form: powder

Odor: acrylic-like

Odor threshold: No data available

Flash point No data available

Auto-ignition

temperature:

No data available

Lower flammable limit

(LFL):

No data available

Upper flammable limit

(UFL):

No data available

pH: ~ 7

Density: No data available

Specific Gravity (Relative

density):

1.230 (77 °F(25 °C))

Vapor pressure: No data available

Vapor density: No data available

Boiling point/boiling

range:

No data available

No data available Freezing point:

No data available Melting point/range:

Evaporation rate: No data available

Solubility in water: negligible

Oil/water partition No data available

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coefficient:

Thermal decomposition No data available

Flammability: See GHS Classification in Section 2

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

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

Data for SARET® SR522 D

Acute toxicity

Oral:

Acute toxicity estimate > 5,000 mg/kg.

Dermal:

Acute toxicity estimate > 5,000 mg/kg.

Data for Acrylate ester (Proprietary)

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Acute toxicity

Skin Irritation:

Causes skin irritation. (estimate based on composition)

Eye Irritation:

Severely irritating (estimate based on composition)

Skin Sensitization:

May cause an allergic skin reaction. (estimate based on composition)

Other information

Possible cross sensitization with other acrylates and methacrylates

The information presented is from representative materials in this chemical class. The results may vary depending on the test substance. Effects due to processing releases or residual monomer:

Data for Silica gel, pptd., cryst.-free (112926-00-8)

Acute toxicity

Inhalation:

No deaths occurred. (rat) 4 h LC0 > 2.08 mg/l.

Skin Irritation:

Practically non-irritating. (Rabbit) Irritation Index: 0-2 / 8. (4 h)

Eye Irritation:

Causes mild eye irritation. (rabbit)

Repeated dose toxicity

Repeated dietary administration to Rat / No adverse systemic effects reported.

Repeated inhalation administration to Rat / affected organ(s): lung, lymph node / signs: inflammation / No adverse systemic effects reported. (Local effects, reversible)

Carcinogenicity

Chronic dietary administration to rat and mouse / affected organ(s): lung / signs: No increase in tumor incidence was reported.

Classified by the International Agency for Research on Cancer as: Group 3: Unclassifiable as to carcinogenicity in humans.

Genotoxicity

Assessment in Vitro:

No genetic changes were observed in laboratory tests using: bacteria, animal cells, human cells, yeast

Genotoxicity

Assessment in Vivo:

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

Developmental toxicity

Exposure during pregnancy. Oral (rat, rabbit, hamster, mouse) / No birth defects were observed.

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Other information

Information given is based on data obtained from similar substances.

Human experience

Inhalation:

Respiratory system: No increase in tumor incidence was reported. No significant impairment of lung function. (based on reports of occupational exposure to workers)

Data for 2,6-di-tert-butyl-alpha-dimethylamino-p-cresol (88-27-7)

Acute toxicity

Skin Irritation:

Practically non-irritating (Rabbit) (4 h) (occluded exposure)

Eye Irritation:

Causes serious eye irritation. (Rabbit)

Skin Sensitization:

May cause allergic skin reaction. LLNA: Local Lymph Node Assay. (Mouse) Produced an allergic reaction.

12. ECOLOGICAL INFORMATION

Chemical Fate and Pathway

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

Data for 2,6-di-tert-butyl-alpha-dimethylamino-p-cresol (88-27-7)

Biodegradation:

Not readily biodegradable. / calculated

Octanol Water Partition Coefficient:

log Pow 4.24 (calculated)

Ecotoxicology

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

Data for Silica gel, pptd., cryst.-free (112926-00-8)

Aquatic toxicity data:

No effect up to the limit of solubility. Brachydanio rerio (zebrafish) 96 h LC0 > 10,000 mg/l (nominal concentrations reported)

Aquatic invertebrates:

No effect up to the limit of solubility. Daphnia (water flea) 24 h LC0 > 10,000 mg/l (nominal concentrations reported)

Data for 2,6-di-tert-butyl-alpha-dimethylamino-p-cresol (88-27-7)

Aquatic toxicity data:

Very toxic. Fish 96 h LC50 = 0.907 - 2.092 mg/l (calculated)

Aquatic invertebrates:



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Very toxic. Daphnia magna (Water flea) 48 h LC50 = 0.335 - 0.746 mg/l (calculated)

Algae:

Very toxic. 96 h EC50 = 0.297 - 2.76 mg/l (calculated)

Microorganisms:

Activated sludge 3 h IC50 (Respiration inhibition) > 100 mg/l

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.

14. TRANSPORT INFORMATION

US Department of Transportation (DOT)

UN Number : 3077

Proper shipping name : Environmentally hazardous substances, solid, n.o.s. Technical name : (2,6-di-tert-butyl-alpha-dimethylamino-p-cresol)

Class : 9
Packaging group : III
Marine pollutant : yes

International Maritime Dangerous Goods Code (IMDG)

UN Number : 3077

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

Technical name : (2,6-DI-TERT-BUTYL-A-DIMETHYLAMINO-P-CRESOL)

Class : 9
Packaging group : III
Marine pollutant : yes

15. REGULATORY INFORMATION

Chemical Inventory Status

EU. EINECS EINECS Conforms to

United States TSCA Inventory TSCA The components of this product are all on

the TSCA Inventory.



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Canadian Domestic Substances List (DSL)	DSL	This product contains one or several components listed in the Canadian NDSL list. All other components are on the DSL list.
China. Inventory of Existing Chemical Substances in China (IECSC)	IECSC (CN)	Does not conform
Japan. Kashin-Hou Law List	ENCS (JP)	Conforms to
Japan. ISHL - Inventory of Chemical Substances	ISHL (JP)	Conforms to
Korea. Korean Existing Chemicals Inventory (KECI)	KECI (KR)	Does not conform
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	PICCS (PH)	Does not conform
Australia Inventory of Chemical Substances (AICS)	AICS	Does not conform

<u>United States – Federal Regulations</u>

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:

Reactivity Hazard, Acute Health Hazard, Fire 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



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New Jersey Right to Know

Chemical Name CAS-No. 112926-00-8 Silica gel, pptd., cryst.-free

Pennsylvania Right to Know

Chemical Name CAS-No. Acrylate ester Proprietary

Silica gel, pptd., cryst.-free 112926-00-8

2,6-di-tert-butyl-alpha-dimethylamino-p-cresol 88-27-7

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive defects.

16. OTHER INFORMATION

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

Causes skin irritation.

May cause an allergic skin reaction. H317

H319 Causes serious eye irritation. H400

Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. H411

Miscellaneous:

Other information: Refer to National Fire Protection Association (NFPA) Code 654,

Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate

Solids, for safe handling.

Latest Revision(s):

Reference number: 000000081369 Date of Revision: 03/12/2015 Date Printed: 03/12/2015

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