

**ROSINOX®****1. PRODUCT AND COMPANY IDENTIFICATION****Company**

Arkema Inc.  
900 First Avenue  
King of Prussia, Pennsylvania 19406

**Thio and Fine Chemicals**

**Customer Service Telephone Number:** (800) 628-4453  
(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:** ROSINOX®  
**Synonyms:** Not available  
**Molecular formula:** Not available  
**Chemical family:** Polysulfide  
**Product use:** Vulcanization agent

**2. HAZARDS IDENTIFICATION****Emergency Overview**

**Color:** dark amber  
**Physical state:** solid  
**Form:** Beads  
**Odor:** Characteristic (sulphides)

**\*Classification of the substance or mixture:**

Skin sensitisation, Category 1, H317

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

**ROSINOX®****GHS-Labeling**

Hazard pictograms:



Signal word:

**Warning****Hazard statements:**

H317 : May cause an allergic skin reaction.

**Supplemental Hazard Statements:**

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

**Precautionary statements:****Prevention:**

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

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

P280 : Wear protective gloves.

**Response:**

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

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

P363 : Wash contaminated clothing before reuse.

**Disposal:**

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

**Supplemental information:****Potential Health Effects:**

Contains high molecular weight polymer(s). 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 depends on extent of exposure).

**Other:**

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

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No.	Wt/Wt	GHS Classification**
Phenol, 4-(1,1-dimethylethyl)-, polymer with sulfur chloride (S <sub>2</sub> Cl <sub>2</sub> )	60303-68-6	> 95 %	H317
Sulfur	7704-34-9	< 3 %	H315

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

**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 if symptoms occur. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eyes:**

Immediately flush eye(s) with plenty of water. Immediately flush eye(s) with plenty of water.

**Ingestion:**

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

**4.2. Most important symptoms/effects, acute and delayed:**

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

**4.3. Indication of immediate medical attention and special treatment needed, if necessary:**

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

**5. FIREFIGHTING MEASURES**

**Extinguishing media (suitable):**

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Water spray, Carbon dioxide (CO<sub>2</sub>), 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:**

Fire fighting equipment should be thoroughly decontaminated after use.

**Fire and explosion hazards:**

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

sulfur oxides

Carbon oxides

Hazardous organic compounds

**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. Sweep up and shovel into suitable properly labeled containers for prompt disposal. Possible fall hazard – floor may become slippery from leakage/spillage of product. 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.

**7. HANDLING AND STORAGE****Handling****General information on handling:**

Avoid prolonged or repeated contact with skin.

Avoid breathing dust.

Avoid breathing processing fumes or vapors.

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:**

Stable under normal conditions.

Keep in a dry, cool place. Store in closed containers, in a secure area to prevent container damage and subsequent spillage.

**Storage incompatibility – General:**

Store separate from: Strong oxidizing agents

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Airborne Exposure Guidelines:**

**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 processing fumes or vapors. 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. 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 thoroughly after handling.

**Eye protection:**

Where eye contact may be likely, wear chemical goggles and have eye flushing equipment available.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Color:</b>	dark amber
<b>Physical state:</b>	solid
<b>Form:</b>	Beads
<b>Odor:</b>	Characteristic (sulphides)
<b>Odor threshold:</b>	No data available
<b>Flash point</b>	> 482 °F (> 250 °C) (Tag closed cup)
<b>Auto-ignition temperature:</b>	No data available.
<b>Lower flammable limit (LFL):</b>	No data available

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<b>Upper flammable limit (UFL):</b>	No data available
<b>pH:</b>	No data available
<b>Density:</b>	1,175 kg/m <sup>3</sup> (176 °F (80 °C))
<b>Specific Gravity (Relative density):</b>	No data available
<b>Bulk density:</b>	805 kg/m <sup>3</sup> 68 °F (20 °C)
<b>Vapor pressure:</b>	Not applicable
<b>Vapor density:</b>	Not applicable
<b>Boiling point/boiling range:</b>	No data available.
<b>Melting point/range:</b>	No data available.
<b>Freezing point:</b>	No data available.
<b>Evaporation rate:</b>	No data available.
<b>Solubility in water:</b>	< 1 mg/l 77 °F (25 °C) insoluble
<b>Solubility in other solvents: [qualitative and quantitative]</b>	Toluene > 600 g/l 77 °F (25 °C)
	Ethanol 15 - 20 g/l 77 °F (25 °C)
	Acetone 30 - 40 g/l 77 °F (25 °C)
<b>Viscosity, dynamic:</b>	1,100 mPa.s 302 °F (150 °C)
<b>Oil/water partition coefficient:</b>	> 6.2 (Method: OECD Test Guideline 117)
<b>Thermal decomposition:</b>	423 °F (217 °C)
<b>Flammability:</b>	See GHS Classification in Section 2

<b>10. STABILITY AND REACTIVITY</b>
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**ROSINOX®****Stability:**

This material is chemically stable under normal and anticipated storage, handling and processing conditions.

**Hazardous reactions:**

Hazardous polymerization does not occur.

**Materials to avoid:**

Strong oxidizing agents

**Conditions / hazards to avoid:**

Avoid dust formation. Avoid flames, welding arcs, potential ignition sources, or other high hazard temperature sources to prevent rapid or explosive thermal decomposition.

**Hazardous decomposition products:**

Thermal decomposition giving flammable and toxic products :

Carbon oxides

Sulphur oxides

Hazardous organic compounds

**11. TOXICOLOGICAL INFORMATION**

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

**Data for Phenol, 4-(1,1-dimethylethyl)-, polymer with sulfur chloride (S<sub>2</sub>Cl<sub>2</sub>) (60303-68-6)****Acute toxicity****Oral:**

No deaths occurred. (rat) LD<sub>0</sub> > 2,000 mg/kg.

**Dermal:**

No deaths occurred. (rat) LD<sub>0</sub> > 2,000 mg/kg.

**Skin Irritation:**

Practically non-irritating. (rabbit) Irritation Index: 0.33/8.0.

**Eye Irritation:**

Causes mild eye irritation. (rabbit) Irritation Index: 2.4/110.

**Skin Sensitization:**

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

**Genotoxicity****Assessment in Vitro:**

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

**Other information**

The information presented is from representative materials with this Chemical Abstract Service (CAS) Registry number. The results vary depending on the size and composition of the test substance.

**ROSINOX®****Data for Sulfur (7704-34-9)****Acute toxicity****Oral:**

No deaths occurred. (rat) LD0 > 2,000 mg/kg.

**Dermal:**

No deaths occurred. (rabbit) LD0 > 2,000 mg/kg.

**Inhalation:**

Practically nontoxic. (rat) 4 h LC50 > 5.43 mg/l. (dust)

**Skin Irritation:**

Causes skin irritation. (rabbit)

**Eye Irritation:**

Causes mild eye irritation. (rabbit)

**Skin Sensitization:**

Not a sensitizer. Repeated skin exposure. (guinea pig) No skin allergy was observed

**Repeated dose toxicity**

Subchronic inhalation administration to rat / signs: reduced body weight

Subchronic oral administration to rat / No adverse effect has been observed in chronic toxicity tests.

Repeated dermal administration to rat / affected organ(s): Skin / signs: Irritation

**Genotoxicity****Assessment in Vitro:**

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

**Genotoxicity****Assessment in Vivo:**

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

**Human experience****Inhalation:**

Respiratory disorders, chronic bronchitis. (dust)

**Human experience****Skin contact:**

Erythema. (repeated or prolonged exposure)

**Human experience****Eye contact:**

Dust and/or vapor are reported to cause irritation when proper industrial hygiene controls/procedures are not used.



**ROSINOX®****12. ECOLOGICAL INFORMATION****Chemical Fate and Pathway**

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

**Data for Phenol, 4-(1,1-dimethylethyl)-, polymer with sulfur chloride (S<sub>2</sub>Cl<sub>2</sub>) (60303-68-6)****Biodegradation:**

Not readily biodegradable. biodegradation

**Octanol Water Partition Coefficient:**

log Pow > 6.2 (OECD Test Guideline 117)

**Ecotoxicology**

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

**Data for Phenol, 4-(1,1-dimethylethyl)-, polymer with sulfur chloride (S<sub>2</sub>Cl<sub>2</sub>) (60303-68-6)****Aquatic toxicity data:**

No effect up to the limit of solubility. Danio rerio (zebra fish) 96 h LL50 > 1,000 mg/l (Water accommodated fraction was tested.)

**Aquatic invertebrates:**

No effect up to the limit of solubility. Daphnia magna (Water flea) 48 h LL50 > 995.8 mg/l (Water accommodated fraction was tested.)

**Algae:**

No effect up to the limit of solubility. Pseudokirchneriella subcapitata (green algae) 72 h LL50 > 998 mg/l (Water accommodated fraction was tested.)

**Chronic toxicity to aquatic plants:**

No effect up to the limit of solubility. Raphidocelis subcapitata 72 h ErL10 (growth rate inhibition) > 998 mg/l

**Data for Sulfur (7704-34-9)****Aquatic toxicity data:**

No effect up to the limit of solubility. Oncorhynchus mykiss (rainbow trout), Bluegill sunfish 96 h LD50 > 0.005 mg/l

**Aquatic invertebrates:**

No effect up to the limit of solubility. Daphnia magna (Water flea) 48 h EC50 > 0.005 mg/l

**Algae:**

No effect up to the limit of solubility. Algae 72 h NOEC > 0.005 mg/l

**Microorganisms:**

Activated sludge 3 h EC50 = 1,900 mg/l

**Chronic toxicity to aquatic invertebrates:**

Practically nontoxic. Daphnia magna (Water flea) 21 d NOEC > 100 mg/l (Nominal concentration)

**Chronic toxicity to aquatic plants:**

No effect up to the limit of solubility. Algae 72 d NOEC > 0.005 mg/l

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**Terrestrial toxicity data:**

Practically nontoxic. Eisenia fetida (earthworms) 14 d NOEC > 1,000 mg/kg

**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.

**14. TRANSPORT INFORMATION**

**US Department of Transportation (DOT):** not regulated

**International Maritime Dangerous Goods Code (IMDG):** not regulated

**15. REGULATORY INFORMATION**

**Chemical Inventory Status**

EU. EINECS	EINECS	Conforms to
US. Toxic Substances Control Act	TSCA	The components of this product are all on the TSCA Inventory.
Canadian Domestic Substances List (DSL)	DSL	All components of this product are on the Canadian DSL
China. Inventory of Existing Chemical Substances in China (IECSC)	IECSC (CN)	Conforms to
Japan. ENCS - Existing and New Chemical Substances Inventory	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)	The mixture contains a polymer. The monomers for this polymer have been notified., Conforms to
Australia Inventory of Chemical Substances (AICS)	AICS	Does not conform

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**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

**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**

<u>Chemical name</u>	<u>CAS-No.</u>
Sulfur	7704-34-9

**Pennsylvania Right to Know**

<u>Chemical name</u>	<u>CAS-No.</u>
Phenol, 4-(1,1-dimethylethyl)-, polymer with sulfur chloride (S <sub>2</sub> Cl <sub>2</sub> )	60303-68-6
Sulfur	7704-34-9
Hydrochloric acid	7647-01-0

**Pennsylvania Right to Know – Environmentally Hazardous Substance(s)**

<u>Chemical name</u>	<u>CAS-No.</u>
Hydrochloric acid	7647-01-0

**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**

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

- H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.

## Latest Revision(s):

Reference number: 200005572  
Date of Revision: 02/09/2017  
Date Printed: 02/10/2017

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*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.*