

## 1. Identification

<b>Product identifier</b>	<b>SYLVATAC™ RE 98</b>
<b>Other means of identification</b>	
<b>SDS number</b>	9145
<b>Product Code</b>	200000000767
<b>Recommended use</b>	Industrial uses: Uses of substances as such or in preparations at industrial sites. Formulation [mixing] of preparations and/or re-packaging (excluding alloys).
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Company</b>	Kraton Chemical, LLC
<b>Address</b>	P.O. Box 550850 Jacksonville, FL
<b>Zip</b>	32255-0850
<b>Country</b>	USA
<b>Phone Number</b>	904-928-8700
<b>Alternate Phone Number</b>	800-526-5294
<b>Fax Number</b>	904-928-8780
<b>Emergency-US</b>	CHEMTREC 800-424-9300

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>OSHA defined hazards</b>	Combustible dust
<b>Label elements</b>	
<b>Hazard symbol</b>	None.
<b>Signal word</b>	Warning
<b>Hazard statement</b>	May form combustible dust concentrations in air.
<b>Precautionary statement</b>	
<b>Prevention</b>	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Prevent dust accumulation to minimize explosion hazard. Observe good industrial hygiene practices.
<b>Response</b>	Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

## 3. Composition/information on ingredients

### Substances

Chemical name	Common name and synonyms	CAS number	%
Resin acids and Rosin acids, esters with pentaerythritol		8050-26-8	99-100

## 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Dusts may irritate the respiratory tract, skin and eyes.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ). Apply extinguishing media carefully to avoid creating airborne dust.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	High concentration of airborne dust may form explosive mixture with air. Static charges generated by emptying package in or near flammable vapor may cause flash fire. During fire, gases hazardous to health may be formed. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Wear suitable protective equipment. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	May form combustible dust concentrations in air.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Use only non-sparking tools. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk.  Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.  Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.  Never return spills to original containers for re-use.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Explosion-proof general and local exhaust ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. Follow all SDS/label precautions even after container is emptied because they may retain product residues.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Store at ambient temperature and atmospheric pressure.

## 8. Exposure controls/personal protection

### Occupational exposure limits

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

Additional components	Type	Value	Form
Dust	TWA	5 mg/m <sup>3</sup>	Respirable fraction.
		15 mg/m <sup>3</sup>	Total dust.

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
<b>Other</b>	Wear suitable protective clothing.
<b>Respiratory protection</b>	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Eye wash fountain and emergency showers are recommended.

## 9. Physical and chemical properties

<b>Appearance</b>	Solid.
<b>Physical state</b>	Solid.
<b>Form</b>	Pastilles or Pellets. or Flakes.
<b>Color</b>	Amber.
<b>Odor</b>	Mild.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	> 491.0 °F (> 255.0 °C) Setaflash Closed Cup
<b>Evaporation rate</b>	0 (n-BuAc=1) estimated
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	< 0.001 mm Hg at 20°C
<b>Vapor density</b>	Not available.
<b>Relative density</b>	1 OECD 105 at 25°C/25°C; (water=1)
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	0.38 mg/l at 20°C; Data is for similar product.

<b>Partition coefficient (n-octanol/water)</b>	6.1 - 7.1 at 35°C; Data is for similar product.
<b>Auto-ignition temperature</b>	> 392 °F (> 200 °C)
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	8650 cP Brookfield at 125°C
<b>Other information</b>	
<b>Chemical family</b>	Rosin Ester
<b>Density</b>	1000.00 kg/m3 at 20°C
<b>Percent volatile</b>	0.5 % estimated
<b>Softening point</b>	197.6 - 212 °F (92 - 100 °C) Ring & Ball
<b>Weighted solids</b>	100 %

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Strong oxidizing agents. Keep away from heat, sparks and open flame. Contact with incompatible materials. Minimize dust generation and accumulation.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	Upon decomposition this product emits acrid dense smoke with carbon dioxide, carbon monoxide, water and other products of combustion.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Dust may irritate respiratory system.
<b>Skin contact</b>	No adverse effects due to skin contact are expected.
<b>Eye contact</b>	Direct contact with eyes may cause temporary irritation.
Resin acids and Rosin acids, esters with pentaerythritol	Irritation Corrosion - Eye, No eye irritation. Result: Negative Species: New Zealand white rabbit Organ: Eye Test Duration: 72 hr Observation Period: 7 days Notes: OECD 405
<b>Ingestion</b>	Expected to be a low ingestion hazard.

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Dusts may irritate the respiratory tract, skin and eyes.
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### Information on toxicological effects

<b>Acute toxicity</b>	Based on available data, the classification criteria are not met.
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Components	Species	Test Results
Resin acids and Rosin acids, esters with pentaerythritol (CAS 8050-26-8)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	New Zealand white rabbit	> 2000 mg/kg, 14 days At this dose no death occurred.; OECD 402.
	Rabbit	> 2000 mg/kg, 24 Hours
<b>Oral</b>		
LD50	Rat	> 2000 mg/kg
	Sprague-Dawley rat	> 2000 mg/kg, 14 days At this dose no death occurred.; OECD 425

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
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**Corrosivity**

Resin acids and Rosin acids, esters with pentaerythritol

Irritation Corrosion - Skin, No skin irritation.  
Result: Negative  
Species: New Zealand white rabbit  
Organ: Skin  
Test Duration: 4 hr  
Observation Period: 72 hr  
Notes: OECD 404

**Serious eye damage/eye irritation**

Direct contact with eyes may cause temporary irritation.

**Eye Contact**

Resin acids and Rosin acids, esters with pentaerythritol

Irritation Corrosion - Eye, No eye irritation.  
Result: Negative  
Species: New Zealand white rabbit  
Organ: Eye  
Test Duration: 72 hr  
Observation Period: 7 days  
Notes: OECD 405

**Respiratory or skin sensitization**

**Respiratory sensitization** Not available.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Skin sensitization**

Resin acids and Rosin acids, esters with pentaerythritol

Local Lymph Node Assay - Lowest Concentration Producing Reaction, Not a skin sensitizer.  
Result: Negative  
Species: Mouse  
Organ: Skin  
Notes: OECD 429  
Maximisation Assay (Magnusson and Kligman), Not a skin sensitizer.  
Result: Negative  
Species: Guinea pig  
Organ: Skin  
Notes: OECD 406

**Germ cell mutagenicity**

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Mutagenicity**

Resin acids and Rosin acids, esters with pentaerythritol

Germ Cell Mutagenicity: Ames, No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.  
Result: Negative  
Species: Salmonella typhimurium  
Notes: OECD 471  
Germ Cell Mutagenicity: Chromosome Abberation, This material is considered to be non-clastogenic to human lymphocytes in vitro.  
Result: Negative  
Species: Human  
Notes: OECD 473  
In vitro gene mutation study in mammalian cells  
Result: Negative  
Species: Mouse  
Notes: OECD 476

**Carcinogenicity**

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

**Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure**

Not available.

**Specific target organ toxicity - repeated exposure** Not available.

**Aspiration hazard** Not available.

**Further information**

Resin acids and Rosin acids, esters with pentaerythritol

Cytotoxicity - in Vitro, Not cytotoxic  
Result: Negative  
Species: Human  
Organ: Fibroblasts cells  
Notes: BS 30993-5

Cytotoxicity - in Vitro, Not cytotoxic  
Result: Negative  
Species: Human  
Organ: Lung cell tissue  
Notes: BS 5736

Cytotoxicity - in Vitro, Not cytotoxic  
Result: Negative  
Species: Mouse  
Organ: Fibroblasts cells  
Test Duration: 72 hr  
Observation Period: 24 hr  
Notes: BS 5736

**12. Ecological information**

**Ecotoxicity** The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results	
Resin acids and Rosin acids, esters with pentaerythritol (CAS 8050-26-8)			
<b>Aquatic</b>			
Algae	EL50	Green algae (Selenastrum capricornutum)	> 1000 mg/l, 72 hr OECD 201
	NOEL	Green algae (Selenastrum capricornutum)	1000 mg/l, 72 hr OECD 201
Crustacea	EL50	Water flea (Daphnia magna)	> 1000 mg/l, 48 hr OECD 202
	NOEC	Water flea (Daphnia magna)	1000 mg/l, 48 hr OECD 202
Fish	LL50	Fathead minnow (Pimephales promelas)	> 1000 mg/l, 96 hr OECD 203
	NOEL	Fathead minnow (Pimephales promelas)	1000 mg/l, 96 hr OECD 203

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** The product is not readily biodegradable.

**Biodegradability**

**Percent degradation (Aerobic biodegradation)**

Resin acids and Rosin acids, esters with pentaerythritol

0 % OECD 301B  
Result: Not readily biodegradable.  
Species: Activated sewage sludge  
Test Duration: 28 days

**Bioaccumulative potential**

**Partition coefficient n-octanol / water (log Kow)**

SYLVATAC™ RE 98

6.1 - 7.1, at 35°C; Data is for similar product.

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

**13. Disposal considerations**

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**Toxic Substances Control Act (TSCA)** All components are either listed on the US EPA TSCA Inventory list and designated as "active" or are exempt from listing.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

### SARA 304 Emergency release notification

Not regulated.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**Classified hazard categories** Combustible dust

#### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

## 16. Other information, including date of preparation or last revision

<b>Issue date</b>	10-27-2014
<b>Revision date</b>	12-04-2020
<b>Version #</b>	7.0
<b>Further information</b>	Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.
<b>NFPA ratings</b>	Health: 1 Flammability: 1 Instability: 0

## NFPA ratings



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## Revision information

This document has undergone significant changes and should be reviewed in its entirety.