

1. Identification

Product identifier	SYLVATAC™ RE 101RM	
Other means of identification		
SDS number	8438	
Product Code	200000000464	
Recommended use	Formulation [mixing] of preparations and/or re-packaging (excluding alloys). Industrial uses: Uses of substances as such or in preparations at industrial sites.	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Company	Kraton Chemical, LLC	
Address	P.O. Box 550850 Jacksonville, FL	
Zip	32255-0850	
Country	USA	
Phone Number	904-928-8700	
Alternate Phone Number	800-526-5294	
Fax Number	904-928-8780	
Emergency-US	CHEMTREC 800-424-9300	

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Serious eye damage/eye irritation	Category 2B
	Sensitization, skin	Category 1B
OSHA defined hazards	Combustible dust	

Label elements



Signal word	Warning	
Hazard statement	May cause an allergic skin reaction. Causes eye irritation. May form combustible dust concentrations in air.	
Precautionary statement		
Prevention	Avoid breathing dust/fume. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. Wash thoroughly after handling. 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.	
Response	IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.	
Storage	Store away from incompatible materials.	
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	None.	

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
Resin acids and Rosin acids, fumarated, esters with pentaerythritol		94581-15-4	100

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
Eye contact	Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂). Apply extinguishing media carefully to avoid creating airborne dust.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	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.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	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.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	May form combustible dust concentrations in air.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	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. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	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). Prevent product from entering drains. 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. Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

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. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. 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.

Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Keep containers tightly closed in a dry, cool and well-ventilated place. Store at ambient temperature and atmospheric pressure. Store away from incompatible materials (see Section 10 of the SDS).

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 ³	Respirable fraction.
		15 mg/m ³	Total dust.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

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. Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection

Face shield is recommended. Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. When handling hot material, use heat resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Wear suitable gloves tested to EN374. Recommended gloves include rubber, neoprene, nitrile or viton. For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time maybe acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness should be typically greater than 0.35 mm. This recommendation is advisory only. It may not be appropriate for all workplaces. It should not be construed as offering an approval for any specific use scenario. A hazard assessment should be conducted prior to use to ensure suitability of gloves for specific work environments and processes.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

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.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

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. Contaminated work clothing should not be allowed out of the workplace. Eye wash fountain and emergency showers are recommended.

9. Physical and chemical properties

Appearance

Solid.

Physical state

Solid.

Form

Pastilles or Pellets. or Flakes.

Color

Yellow.

Odor

Mild.

Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	480.2 °F (249.0 °C) Setaf flash Setaf flash closed cup
Evaporation rate	0 approx., (n-BuAc=1)
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	< 0.001 mm Hg at 20°C
Vapor density	Not available.
Relative density	1.07 at 25°C/25°C (water=1)
Solubility(ies)	
Solubility (water)	< 0.1 % at 25°C
Partition coefficient (n-octanol/water)	3.41
Auto-ignition temperature	> 392 °F (> 200 °C)
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Chemical family	Modified Rosin Ester
Density	1090.00 kg/m ³ at 20°C
Flammability class	Combustible IIIB estimated
Percent volatile	0 % by weight estimated
Softening point	212 - 222.8 °F (106 - 106 °C) Ring & Ball
Weighted solids	100 %

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Strong oxidizing agents. Keep away from heat, sparks and open flame. Contact with incompatible materials. Minimize dust generation and accumulation.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	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

Inhalation	Dust may irritate respiratory system.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes eye irritation.

Resin acids and Rosin acids, fumarated, esters with pentaerythritol

Irritation Corrosion - Eye, Data is for similar product.
 Result: Positive
 Species: New Zealand white rabbit
 Organ: Eye
 Test Duration: 4 hr
 Observation Period: 72 hr
 Notes: OECD 405

Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity May cause an allergic skin reaction.

Components	Species	Test Results
Resin acids and Rosin acids, fumarated, esters with pentaerythritol (CAS 94581-15-4)		
Acute		
Dermal		
LD50	Rat	> 2000 mg/kg, 24 Hours
	Sprague-Dawley rat	> 2000 mg/kg At this dose no death occurred.; Data is for similar product.
Oral		
LD0	Sprague-Dawley rat	> 2000 mg/kg At this dose no death occurred.; Data is for similar product.
LD50	Rat	> 2000 mg/kg At this dose no death occurred.; Data is for similar product.
Subacute		
Oral		
NOAEL	Wistar rat	300 mg/kg/day, 8 weeks Developmental
NOEL	Wistar rat	1000 mg/kg/day, 8 weeks Reproductive

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

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Corrosivity

Resin acids and Rosin acids, fumarated, 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
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Serious eye damage/eye irritation Causes eye irritation.

Eye Contact

Resin acids and Rosin acids, fumarated, esters with pentaerythritol	Irritation Corrosion - Eye, Data is for similar product. Result: Positive Species: New Zealand white rabbit Organ: Eye Test Duration: 4 hr Observation Period: 72 hr Notes: OECD 405
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Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

Skin sensitization

Resin acids and Rosin acids, fumarated, esters with pentaerythritol	50 % w/w Local Lymph Node Assay - Lowest Concentration Producing Reaction, SI=4.24; May cause sensitization by skin contact. Result: Positive Species: Mouse Notes: OECD 429
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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, fumarated, esters with pentaerythritol	Germ Cell Mutagenicity: Ames Result: Negative Species: Salmonella typhimurium Notes: OECD 471
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Mutagenicity

Resin acids and Rosin acids, fumarated, esters with pentaerythritol

Germ Cell Mutagenicity: Chromosome Abberation

Result: Negative

Species: Human

Notes: OECD 473

In vitro gene mutation study in mammalian cells, No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

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 classified.

Specific target organ toxicity - repeated exposure

Not classified.

Aspiration hazard

Not an aspiration hazard.

12. Ecological information

Ecotoxicity

May cause long lasting harmful effects to aquatic life.

Components		Species	Test Results
Resin acids and Rosin acids, fumarated, esters with pentaerythritol (CAS 94581-15-4)			
Aquatic			
Algae	EC0	Algae	> 1000 mg/l, 72 hr Data is for similar product.; OECD 201
Crustacea	EL50	Daphnia	> 100 mg/l, 48 hr OECD 202
	NOEL	Daphnia	56 mg/l, 48 hr >> Water solubility; OECD 202
Fish	LC0	Danio (Danio)	> 400 mg/l, 96 hr Data is for similar product.; 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, fumarated, esters with pentaerythritol

46 % CO2 Evolution Test

Result: Not readily biodegradable.

Species: Activated sewage sludge

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

SYLVATAC™ RE 101RM

3.41

Resin acids and Rosin acids, fumarated, esters with pentaerythritol

3.41, at 20°C

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.

Waste from residues / unused products	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).
Contaminated packaging	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
Serious eye damage or eye irritation
Respiratory or skin sensitization

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

Issue date 12-30-2014

Revision date 05-05-2022

Version # 6.0

Further information 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.

NFPA ratings Health: 2
Flammability: 1
Instability: 0



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Revision information

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 Other information, including date of preparation or last revision: Disclaimer