

## 1. Identification

<b>Product identifier</b>	<b>SYLVATAL™ 20/25S</b>
<b>Other means of identification</b>	
<b>SDS number</b>	8877
<b>Product Code</b>	200000000480
<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
<b>City/State</b>	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>	Not classified.
<b>Label elements</b>	
<b>Hazard symbol</b>	None.
<b>Signal word</b>	None.
<b>Hazard statement</b>	The mixture does not meet the criteria for classification.
<b>Precautionary statement</b>	
<b>Prevention</b>	Observe good industrial hygiene practices.
<b>Response</b>	Wash hands after handling.
<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>	After prolonged contact with highly porous materials, this product may spontaneously combust.
<b>Supplemental information</b>	None.

## 3. Composition/information on ingredients

### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Tall Oil Fraction		Proprietary	100

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 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>	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>	Direct contact with eyes may cause temporary irritation.
<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> ).
<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>	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>	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>	Porous material such as rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Absorb in vermiculite, dry sand or earth and place into containers.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.  Small Spills: Absorb in vermiculite, dry sand or earth and place into containers. Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Porous material such as rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material. May auto-oxidize with sufficient heat generation to ignite if spread (as a thin film) or absorbed on porous or fibrous material. Contaminated rags and cloths must be put in fireproof containers for disposal. Avoid prolonged exposure. 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>	Do not store in direct sunlight. Store in original tightly closed container. Keep containers closed when not in use. 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

U.S. - OSHA Components	Type	Value	Form
Tall Oil Fraction	TWA	5 mg/m <sup>3</sup>	Oil Mist; Respirable

  

ACGIH Components	Type	Value	Form
Tall Oil Fraction	STEL	10 mg/m <sup>3</sup>	Oil Mist; Respirable
	TWA	5 mg/m <sup>3</sup>	Oil Mist; Respirable

### Biological limit values

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

### Appropriate engineering controls

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.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses with side shields (or goggles).

#### Skin protection

##### Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

##### Other

Wear suitable protective clothing.

#### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

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

### Appearance

Liquid.

#### Physical state

Liquid.

#### Form

Liquid.

#### Color

Yellow.

### Odor

Mild.

### Odor threshold

Not available.

### pH

Not available.

### Melting point/freezing point

Not available.

### Initial boiling point and boiling range

> 392 °F (> 200 °C)

### Flash point

392.0 °F (200.0 °C) Cleveland Open Cup

### Evaporation rate

0 (n-BuAc=1) estimated

### 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

0.935 at 25°C/25°C; (water=1)

### Solubility(ies)

#### Solubility (water)

9 mg/L at 20°C; Data is for similar product.

<b>Partition coefficient (n-octanol/water)</b>	4.9 - 7.7 at 30°C; Data is for similar product.
<b>Auto-ignition temperature</b>	> 392 °F (> 200 °C)
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	80 cP at 20°C
<b>Other information</b>	
<b>Chemical family</b>	Tall Oil Fraction
<b>Density</b>	935.00 kg/m3 at 20°C
<b>Flammability class</b>	Combustible IIIB estimated
<b>Percent volatile</b>	0 % estimated
<b>Pour point</b>	14 °F (-10 °C)
<b>Specific gravity</b>	0.94 at 25°C/25°C; (water=1)

## 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. Avoid temperatures exceeding the flash point. Contact with incompatible materials. Porous material such as rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material.
<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>	Prolonged inhalation may be harmful.
<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.
Tall Oil Fraction	Draize Test, No eye irritation. Result: Negative Species: Albino rabbit Organ: Eye Test Duration: 7 days Observation Period: 7 days Irritation Corrosion - Eye, No eye irritation.; Data is for similar product. Result: Negative Species: New Zealand white rabbit Organ: Eye Observation Period: 72 hr Notes: OECD 405

**Ingestion** Expected to be a low ingestion hazard.

**Symptoms related to the physical, chemical and toxicological characteristics** Exposure may cause temporary irritation, redness, or discomfort.

### Information on toxicological effects

**Acute toxicity** Based on available data, the classification criteria are not met.

Components	Species	Test Results
Tall Oil Fraction		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Albino rabbit	> 2000 mg/kg, 14 days At this dose no death occurred.

Components	Species	Test Results
	Sprague-Dawley rat	> 2000 mg/kg, 14 days At this dose no death occurred.; Data is for similar product.; OECD 402
<b>Oral</b>		
LD50	Albino Sprague-Dawley rat	> 10000 mg/kg, 14 days At this dose no death occurred.
	Charles River rat	> 2000 mg/kg, 14 days At this dose no death occurred.; Data is for similar product.; OECD 423
<b><u>Subacute</u></b>		
<b>Oral</b>		
NOEL	Sprague-Dawley rat	1000 ppm OECD 422

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

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

**Corrosivity**

Tall Oil Fraction

Irritation Corrosion - Skin, No skin irritation.; Data is for similar product.  
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**

Tall Oil Fraction

Draize Test, No eye irritation.  
Result: Negative  
Species: Albino rabbit  
Organ: Eye  
Test Duration: 7 days  
Observation Period: 7 days  
Irritation Corrosion - Eye, No eye irritation.; Data is for similar product.  
Result: Negative  
Species: New Zealand white rabbit  
Organ: Eye  
Observation Period: 72 hr  
Notes: OECD 405

**Respiratory or skin sensitization**

**Respiratory sensitization** Not available.

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

**Skin sensitization**

Tall Oil Fraction

Buehler Test, Not a skin sensitizer.  
Result: Negative  
Species: Guinea pig  
Organ: Skin  
Notes: OECD 406  
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**  
Tall Oil Fraction

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: Hamster

Organ: Ovary cells

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.; Data is for similar product.

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 1910.1001-1050)**

Not regulated.

**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 available.

**Chronic effects** Prolonged inhalation may be harmful.

**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
Tall Oil Fraction	EC50	Bacteria (Pseudomonas putida)	> 10000 mg/l, 16 hr
	EL50	Green algae (Desmodesmus subspicatus)	> 2000 mg/l, 72 hr OECD 201
	NOEL	Green algae (Desmodesmus subspicatus)	300 mg/l, 72 hr OECD 201
<b>Aquatic</b>			
	Algae	Green algae (Selenastrum capricornutum)	> 1000 mg/l, 72 hr Growth rate; OECD 201
Crustacea	EL50	Daphnia	5000 - 10000 mg/l, 48 hr OECD 202
		Water flea (Daphnia magna)	> 1000 mg/l, 48 hr OECD 202
	NOEL	Daphnia	5000 mg/l, 48 hr OECD 202
Fish	LL50	Fish	> 100 mg/l, 96 hr OECD 203
		Zebra danio (Danio rerio)	> 10000 mg/l, 96 hr
	NOEL	Fish	100 mg/l, 96 hr OECD 203

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

**Persistence and degradability** The product is biodegradable.

## Biodegradability

### Percent degradation (Aerobic biodegradation)

Tall Oil Fraction

73.2 % Manometric respirometry test, OECD 301F

Result: Readily biodegradable.

Species: Activated sewage sludge

Test Duration: 28 days

88 - 100 % CO<sub>2</sub> Evolution Test

Species: Activated sewage sludge

Test Duration: 28 d

## Bioaccumulative potential

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

SYLVATAL™ 20/25S

4.9 - 7.7, at 30°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.

### 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 not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

### 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 1910.1001-1050)

Not regulated.

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

#### Hazard categories

Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

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.

**NFPA ratings** Health: 1  
Flammability: 1  
Instability: 0

**NFPA ratings**



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

**Issue date** 03-06-2015

**Revision date** 09-21-2017

**Version #** 3.0

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