

1. Identification

Product identifier SYLVATAL™ 20S

Other means of identification

SDS number 8878

Product Code 200000000481

Recommended use Industrial uses: Uses of substances as such or in preparations at industrial sites. Formulation [mixing] of preparations and/or re-packaging (excluding alloys).

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Arizona Chemical Company LLC

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2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) After prolonged contact with highly porous materials, this product may spontaneously combust.

Supplemental information 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

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	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	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	Porous material such as rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	<p>Absorb in vermiculite, dry sand or earth and place into containers.</p> <p>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.</p> <p>Small Spills: Absorb in vermiculite, dry sand or earth and place into containers. Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	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.
Conditions for safe storage, including any incompatibilities	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 ³	Oil Mist; Respirable

ACGIH Components	Type	Value	Form
Tall Oil Fraction	STEL	10 mg/m ³	Oil Mist; Respirable
	TWA	5 mg/m ³	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	5 mbar at 200°C

Vapor density	Not available.
Relative density	0.93 at 25°C/25°C; (water=1)
Solubility(ies)	
Solubility (water)	9 mg/L at 20°C; Data is for similar product.
Partition coefficient (n-octanol/water)	4.9 - 7.7 at 30°C; Data is for similar product.
Auto-ignition temperature	> 392 °F (> 200 °C)
Decomposition temperature	Not available.
Viscosity	70 cP at 20°C
Other information	
Chemical family	Tall Oil Fraction
Density	930.00 kg/m3 at 20°C
Percent volatile	0 %
Pour point	14 °F (-10 °C)

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. 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.
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	Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	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		
<u>Acute</u>		
Dermal		
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
Oral		
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
<u>Subacute</u>		
Oral		
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
Aquatic			
	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 % CO₂ Evolution Test

Species: Activated sewage sludge

Test Duration: 28 d

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

SYLVATAL™ 20S

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 12-02-2016

Version # 2.0

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