KRATON

SAFETY DATA SHEET

1. Identification

Product identifier **SYLVACOTE™ 7097**

Other means of identification

SDS number 9033

Product Code 200000000650

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

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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	%
Rosin, maleated, polymer with glycerol		68038-41-5	99-100

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 (CO2). 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.

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.

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/m3	Respirable fraction.
		15 mg/m3	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

Amber solid

Physical state

Solid.

Form

Pastilles or Pellets. or Flakes.

Color

Amber.

Odor

Mild rosin

Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	>392.0 °F (>200.0 °C)
Evaporation rate	0 (n-BuAc=1) estimated
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
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 at 25ºC/25ºC (water=1)
Solubility(ies)	
Solubility (water)	<0.1 % at 25°C
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Chemical family	Modified Rosin Ester
Density	>1000.00 kg/m3 at 20°C
Percent volatile	0 % by weight estimated
Softening point	260.6 °F (127 °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.

Rosin, maleated, polymer with glycerol	Irritation Corrosion - Eye, May cause eye irritation.; 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
Rosin, maleated, polymer with glycerol (CAS 68038-41-5)		
Acute		
Oral		
LD50	Sprague-Dawley rat	> 5000 mg/kg, 15 days At this dose no death occurred.
Subchronic		
Oral		
NOAEL	Wistar rat	300 mg/kg/day, 8 weeks Developmental; Data is for similar product.
NOEL	Wistar rat	1000 mg/kg/day, 8 weeks Reproductive; Data is for similar product.

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

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

Corrosivity

Rosin, maleated, polymer with glycerol

Irritation Corrosion - Skin, No skin irritation.
Result: Negative
Species: New Zealand white rabbit
Organ: Skin
Observation Period: 72 hr

Serious eye damage/eye irritation Causes eye irritation.

Eye Contact

Rosin, maleated, polymer with glycerol

Irritation Corrosion - Eye, May cause eye irritation.; 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

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

Skin sensitization

Rosin, maleated, polymer with glycerol

50 % w/w Local Lymph Node Assay; Lowest Concentration Producing Reaction, SI=4.24; May cause sensitization by skin contact.; Data is for similar product.
Result: Positive
Species: Mouse
Notes: OECD 429

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

Mutagenicity

Rosin, maleated, polymer with glycerol

Germ Cell Mutagenicity: Ames, Data is for similar product.
Result: Negative
Species: Salmonella typhimurium
Notes: OECD 471
Germ Cell Mutagenicity: Chromosome Abberation, Data is for similar product.
Result: Negative
Species: Human
Notes: OECD 473

Mutagenicity

Rosin, maleated, polymer with glycerol	In Vitro Mammalian Cell Gene Mutation Test, 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 1910.1001-1053)

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
Rosin, maleated, polymer with glycerol (CAS 68038-41-5)			
Aquatic			
Algae	EC0	Algae	1000 mg/l, 72 hr Data is for similar product.; OECD 201
Crustacea	EL50	Daphnia	> 100 mg/l, 48 hr Data is for similar product.; OECD 202
	NOEL	Daphnia	100 mg/l, 48 hr Data is for similar product.; 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)

Rosin, maleated, polymer with glycerol	5 %, Data is for similar product. Estimated Result: Not readily biodegradable. Species: Activated sewage sludge Test Duration: 28 d

Bioaccumulative potential

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 11-07-2014

Revision date 05-04-2023

Version # 4.0

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

NFPA ratings

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Revision information

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Regulatory information: Toxic Substances Control Act (TSCA)
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