

MSDS - Material Safety Data Sheet**Product Name: Tissue Builder****MSDS No.: KRL103/1/D****I. Basic Information:****Manufacturer:** Sirchie Finger Print Laboratories**Address:** 100 Hunter Place**City, ST Zip:** Youngsville, NC 27596**Emergency Contact:** ChemTrec**Emergency Telephone Number:** 800-424-9300**Contact:** Tech Support**Information Telephone Number:** 919-554-2244**Last Update:** 01/27/2011**Expiration Date:****Chemical State:** Liquid Gas Solid**Chemical Type:** Pure Mixture

2	Health
4	Flammability
2	Reactivity
H	Pers. Protection

II. Ingredients: **Trade Secret** (N/D = Not Disclosed)

CAS No.	Chemical Name	% Range	EHS		IARC		SARA		OSHA PEL	ACGIH TLV	Other Limits
			NTP		SUB Z	313					
64175	Ethanol	1.5							1,000 ppm	1,000 ppm	57 F
60297	Ethyl ether	45-52.5							400 ppm	400 ppm	
67561	Methanol	25					X		200 ppm	200 ppm	53.6 F
9004700	Nitrocellulose	>0.75							NE	NE	

III. Hazardous Identification:**Hazard Category:**
 Acute
 Chronic
 Fire
 Pressure
 Reactive
Hazardous Identification Information:

FLAMMABLE! May be fatal or cause blindness if ingested. Harmful if inhaled. May be absorbed through the skin. May cause respiratory and digestive tract irritation. Skin and eye irritant. Aspiration hazard. May cause central nervous system depression. May cause liver and kidney damage. May cause adverse reproductive and fetal effects based on animal testing.

This material is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

IV. First Aid Measures:**Route(s) of Entry:**

Inhalation, ingestion, skin, eyes

Health Hazards (Acute and Chronic):

Acute: Chemical pneumonitis (if aspirated into lungs)

Chronic: Dermatitis, skin defatting, anxiety, depression, excitability

Signs and Symptoms:

Inhalation: Headache, dizziness, unconsciousness, seizures, coma, possible death due to respiratory failure

Ingestion: Excitement, headache, dizziness, drowsiness, fatigue, nausea, vomiting, stupor, collapse, unconsciousness, coma, possible death due to respiratory failure

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Medical Conditions Generally Aggravated by Exposure:

Kidney, central nervous system, liver, eyes, respiratory, skin, heart, blood, central nervous system diseases

Emergency and First Aid Procedures:

Inhalation: Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen (To be administered by qualified medical personnel only!) Get medical attention.

Ingestion: DO NOT induce vomiting. If victim is conscious and alert, give 2-4 cups of milk or water. (Never give anything by mouth to an unconscious person!) Aspiration hazard. Get medical attention immediately.

Skin: Flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing. Seek medical attention if irritation persists.

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Do not allow victim to rub or keep eyes closed. Get medical aid immediately.

Notes to physician: Effects may be delayed. Ethanol may inhibit metabolism.

Other Health Warnings:

V. Fire Fighting Measures:

Flash Point: -17.78 C

Lower Explosive Limit: 1.9

Upper Explosive Limit: 36

F.P. Method:

Fire Extinguishing Media: Dry chemical, carbon dioxide, water spray, alcohol-resistant foam

Special Fire Fighting Procedures:

Wear self-contained breathing apparatus and protective clothing. Water may be ineffective, but may be used to cool fire-exposed containers.

Unusual Fire and Explosion:

Containers can build up pressure if exposed to heat and/or fire. Will readily ignite at room temperature. Vapors from this product may travel some distance from original point to an ignition source and flash back. This material is lighter than water and insoluble in water. The fire could easily be spread by the use of water in an area where the water can not be contained.

"Empty" containers may contain product residue and may be dangerous. Empty containers should be completely drained and bunged and then disposed of according to local, state, and federal regulations.

VI. Accidental Release Measures:

Steps to be Taken in Case Material is Released or Spilled:

Wear vapor respirator, safety goggles, and rubber gloves. Remove sources of ignition (i.e. open flames, sparks). Soak up with inert absorbent material (earth, sand, or vermiculite recommended; do not use flammable substances such as sawdust). Scoop up with non-sparking tool. Dispose according to local, state, and federal regulations.

VII. Handling and Storage:

Precautions to be Taken:

Keep in tightly closed container. Keep container closed to prevent drying out. Keep cool and dry. Avoid direct sunlight. Avoid all ignition sources (heat, open flame, spark). Avoid incompatible materials. Use only in well-ventilated areas. Avoid contact with skin and eyes. Do not ingest or inhale. Wash thoroughly after handling.

Other Precautions:

"Empty" containers may contain product residue and may be dangerous. Empty containers should be completely drained and bunged and then disposed of according to local, state, and federal regulations.

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VIII. Exposure Controls/Personal Protection:

Ventilation Requirements:

Use only in well-ventilated areas.

Personal Protective Equipment:

Safety goggles, gloves, vapor respirator, protective clothing

IX. Physical and Chemical Properties:

Boiling Point: 95 F

Melting Point: -98 C

Evaporation Rate (Butyl Acetate = 1): 5.2

Vapor Pressure (mm Hg.): 96

Specific Gravity (H₂O = 1):

Vapor Density (AIR = 1): 2.6

Solubility In Water: Miscible

Appearance and Odor: Clear liquid; alcohol odor

Other Information:

X. Stability and Reactivity:

Stability:

Not stable during routine use and handling conditions. Prolonged exposure to air and sunlight may form unstable peroxides.

Incompatibility (Materials to Avoid):

Oxidants, active metals, acetyl bromide, alkyl aluminum salts, beryllium dihydride, carbon tetrachloride + metals, chloroform + heat, chloroform + sodium hydroxide, chlorides, diethyl zinc, acids, potassium tert-butoxide, light, air, peroxides, bromoazides, chlorine, chlorine trifluoride, chromic anhydride, lithium aluminum hydride, nitrates, perchlorates, ozone, permanganates, triethyl or trimethyl aluminum, ignition sources (heat, open flame, spark). Please refer to the NFPA Fire Protection Guide for all methanol incompatibility specifics.

Decomposition/By Products:

Carbon monoxide and dioxide, formaldehyde (carcinogen), nitrogen oxides, peroxides

Hazardous Polymerization:

Has not been reported.

XI. Toxicological Information:

May be fatal or cause blindness if ingested. Harmful if inhaled. May be absorbed through the skin. May cause central nervous system depression. May cause liver and kidney damage. May cause adverse reproductive and fetal effects based on animal testing.

XII. Ecological Information:

Prevent from entering sewers or waterways. May be toxic to some aquatic life.

XIII. Disposal Considerations:

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Dispose according to local, state, and federal regulations.

Methanol

RCRA U-Series: Waste no. U154 (Ignitable waste)
This material is banned from land disposal according to RCRA.

Ethyl ether

RCRA U-Series: Waste no. U117 (Ignitable waste)
This material is banned from land disposal according to RCRA.

XIV. Transport Information:

Keep in tightly closed container. Keep container closed to prevent drying out. Keep cool and dry. Avoid direct sunlight. Avoid all ignition sources (heat, open flame, spark). Avoid incompatible materials. Avoid contact with skin and eyes. Do not ingest or inhale. Wash thoroughly after handling.

IATA

Shipping name: Nitrocellulose solution, flammable
Hazard class: 3
UN no.: 2059
Packing group: II
Flammable liquid!

XV. Regulatory Information:

All ingredients are listed on the TSCA inventory.

Methanol is listed as a hazardous air pollutant (HAP) under the Clean Air Act.

Nitrocellulose is considered highly hazardous by OSHA.

This material is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

XVI. Other Information:

Using this product under normal, properly instructed procedures should not be hazardous.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.