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MATERIAL SAFETY DATA SHEET

E-Z GUM TURPENTINE

EMERGENCY CONTACT: FOR CHEMICAL EMERGENCY - SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL CHEMTREC AT 1-(800)-424-9300, DAY OR NIGHT.

INDEX	**HMIS**		**NFPA**	
4 - Severe	Health	*2	Health	2
3 - Serious	Flammability	3	Flammability	3
2 - Moderate	Reactivity	0	Reactivity	0
1 - Slight				
0 - Insignificant		* denotes chronic hazard		

Section 1. PRODUCT IDENTIFICATION

Product Name	**Synonym**	**CAS Number**	**Use**
Brazilian Gum Turpentine (Produced in Brazil) (Mainly a mixture of bicyclic monoterpenic hydrocarbons, mostly alpha & beta-Pinene)	Turpentine, Gum; Oil of Turpentine	9005-90-7 8006-64-2	Varied applications Varied applications

Section 2. HAZARDOUS INGREDIENTS

Hazardous Components	**%**	**STEL**	**ACGIH TLV**	**OSHA PEL**
A-Pinene (CAS#80-56-8)	40-55%	150 ppm	100 ppm	100 ppm
B-Pinene (CAS#127-91-3)	30-45%	150 ppm	100 ppm	100 ppm
Other Terpenes	3-10%	N/A	N/A	N/A

Section 3. PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point: 311-374F° (155°C-190°C) **(760mm Hg)**

VAPOR PRESSURE: <3 mmHg **(mmHg @ 20°C)**

Specific Gravity: 0.865-0.875 **(H_20=1)**

Solubility in Water: Negligible g/100cc

Percent Volatile by Vol.: 99%

Odor: Sweet Turpentine Odor

Vapor Density: 4.84 **(Air =1)**

Refractive Index: 1.465 - 1.478 **(@20°C)**

Evaporation Rate: <1.0 **(Ether =1)**

Optical Rotation: -25° to -31° **(@25°C)**

Section 4. FIRE & EXPLOSION HAZARD DATA

Flash Point (TCC): 95°F (35°C) **Identification No.:** UN1299 **EINECS No.:** 232-350-7

Flash Point (Open Cup): 120°F (49°C) **Risk Number:** 30 **Risk Class:** 3 **Risk Group:** III

OSHA Class IC Flammable Liquid **Auto Ignition:** 476°F
DOT EMERGENCY GUIDE NUMBER: 26
Extinguishing Media: Regular Foam, $C0_2$, Dry Chemical (Class B) or Halon®. Do not use water.
Flammable Limits: (% by volume) LEL-0.8 UEL - 0.87%
Special Fire Fighting Procedures and Equipment: DO NOT use water. As with any fire situation, full face, self-contained breathing apparatus and appropriate protective clothing should be worn. Under fire conditions, this product may release CO, $C0_2$, and other decomposition products of undetermined hazard. Water is unsuitable for use on burning material, but may be used to cool containers exposed to heat.
Shipping Classifications:
Hazardous Substance/RQ: Ignitable waste/100 lb. (45.4 Kg). Flammable Liquid, Turpentine, 3, UN1299
Int'l./Air Freight: UN 1299 - Terpene Hydrocarbons, Class 3, PG III
DOT Proper Shipping Name & [Container Mode]: TURPENTINE, 3, UN1299, III [55 Gal Drum/5 Gal Pail]
DOT Proper Shipping Name & [Container Mode]: CONSUMER COMMODITY, ORM-D [Gallon/Quart/Pint]
OTHER TRANSPORT INFORMATION
The DOT Transport Information may vary with the container and mode of shipment.

Section 5. HEALTH HAZARD DATA

Carcinogenicity: None **NTP:** N/A **OSHA:** Flammable Liquid **IARC:** N/A
Signs and Symptoms of Acute and Chronic Exposure:
Repeated or prolonged skin contact may produce primary skin irritation, contact dermatitis, or chemical burns. Eye contact with liquid or vapor is irritating and damaging. It can cause conjunctivitis or corneal burns. Vapors can irritate the eyes at 175 ppm. Overexposure to vapor may cause headaches, dizziness, vertigo, chest pain, bronchitis, pulmonary edema, cyanosis, narcosis, accelerated pulse. Acute oral poisoning (mean; lethal dose: Adult - 4 to 6 ounces) and repeated dermal or chronic inhalation overexposure may produce kidney or bladder damage, also may cause a predisposition to pneumonia and chronic nephritis. Effects of repeated inhalation on vapors below TLV is presumed safe.
Primary Routes of Entry:
Inhalation - Absorption/dermal -Ingestion - Eyes
Medical Conditions Aggravated:
Eye, skin and upper respiratory inflammation.
TOXICOLOGY:
A & B-Pinene: Acute Oral (rat) LD50 = 3700 mg/kg to > 5000 mg/kg
Alpha Pinene: Acute Dermal (rabbit) LD50 => 5000 mg/kg
Turpentine: Oral (human) LDLo= 500 mg/kg. Inhalation (human) LCLo = 175 ppm (irritant effects). Possibility of Teratogenic Effects exists for pregnant women (AIHA Journal, 1976, 423-26)
EMERGENCY AND FIRST AID PROCEDURES:
Skin Contact: Wash affected area with copious amounts of soap and water. Remove contaminated clothing and shoes, and launder before re-use. If irritation persists, seek medical assistance.
Eye Contact: Remove any contact lenses at once. IMMEDIATELY flush eyes well with large quantities of water for at least 15 minutes. See a physician immediately.
Accidental Ingestion: GET MEDICAL HELP IMMEDIATELY. Stomach pumping and lavage may be required. Give edible oil or white mineral oil to drink. DO NOTinduce vomiting-aspiration a hazard if vomiting occurs.
Inhalation: If symptoms of overexposure are experienced, evacuate to fresh air. If respiration stops, give mouth to mouth resuscitation. If symptoms persist, seek medical attention.

Section 6. REACTIVITY DATA

Stability: Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products: Burning produces Carbon Monoxide and/or Carbon Dioxide.
Hazardous Polumerization: May occur from contamination with strong acids.
Conditions to Avoid: Reasonably stable when stored in well-ventilated, cool place in suitable containers sealed to exclude air. It can undergo auto oxidation in air and generate heat which can build up in a confined space.

Incompatibilities: Avoid strong oxidizing agents and acids or acidic materials. Do not store in plastic containers. Avoid exposure to sparks, heat and flames.

Section 7. SPILL OR LEAK PROCEDURES

Steps to be Taken in Case Material is Released or Spilled: Remove sources of ignition. Use protective gloves to avoid skin contact and avoid inhalation by using a NIOSH-approved respiratory protection device suitable for the level of exposure. Wear impervious boots. Small spills can be wiped up with vermiculite or other suitable absorbent material and removed to an approved disposal container. Large spills should be absorbed by dirt, sand, or other suitable absorbents for disposal. Do not hose spills down drains. Move leaking containers to well-ventilated area. No Smoking.

Waste Handling & Disposal Method: Dispose of in accordance with Federal, State and Local environmental regulations. Burning is recommended for waste disposal using an approved incinerator.

EPA HAZARDOUS WASTE NUMBER (40 CFR 261.21): D001

EPA REPORTABLE QUANTITY (49 CFR 172.101) APPENDIX): 100 LBS.

Section 8. OCCUPATIONAL PROTECTIVE MEASURES

Respiratory Protection:	MSHA/NIOSH - approved organic vapor respiratory protection should be worn when TLV is exceeded in accordance with OSHA 29 CFR 1910.134 or other applicable standards or guidelines.
Ventilation:	General mechanical ventilation (to reduce fumes) plus local exhaust at points of emission to maintain exposures below TLV(s) listed.
Protective Gloves:	Neoprene or Rubber - impervious gloves.
Eye Protection:	ALWAYS wear OSHA-approved chemical splash goggles with side shields OR full facepiece respirator as approved by NIOSH; full face shield to be worn with goggles and respirator if NOT a full facepiece respirator.
Other Protective Equipment:	Wear aprons, boots and other suitable body protection appropriate to the existing work environment.
Safety Stations:	Eye bath and safety shower; clothing to protect from skin contact.
Work/Hygienic Practices:	Good personal hygiene practices should be used. Wash after any contact, before eating, and at the end of the work period.

Section 9. SPECIAL PRECAUTIONS

Handling and Storage Precautions: Store in glass, tin-lined, stainless steel or epoxy-lined containers to preserve quality. Do not store in plastic. Store in closed containers away from heat or sources of ignition and oxidizing materials. Protect against physical damage to containers. Avoid inhalation and contact with skin and eyes. Areas containing this material should have fire safe practices and electrical equipment in accordance with electrical and fire protection codes (NFPA-30) governing Class I Liquids. KEEP AWAY FROM OPEN FLAMES. NO SMOKING in areas of use or storage.

Other Precautions: Do not dispose of solvent or oil-soaked combustible materials (rags, paper, etc.) in an open container or trash can. Place rags in approved waste cans or soak with water.

Section 10. ECOLOGICAL INFORMATION

Gum Turpentine is a natural product and its individual components are entirely biodegradable within a few days depending on the dilution degree, temperature, air supply and bacteria present.

In case of leaks, avoid runoff into storm sewers and ditches which lead to waterways. The EPA and U.S. Department of Transportation has classified Turpentine as a **Marine Pollutant**. See Paragraph 7.

Section 11. ADDITIONAL INFORMATION

Permissible Concentrations References: ACGIH Threshold Limit Values (1988-1989).
OSHA Standard 29 CFR 1910.1000 (1989).

This product is listed on the EPA/TSCA Inventory of Chemical Substances.

This product satifies all the requirements of the European Inventory of Existing Chemical Substances (EINECS).

California Prop 65: To the best of our knowledge, belief and current analytical methods, this product generally does not contain detectable amounts of any chemical known to the State of California to cause cancer or reproductive toxicity which has appeared on the list of such chemicals published by the Governor. However, contaminants in raw materials, incomplete chemical reactions, or other factors, may, from time to time, result in the inclusion in a product detectable amounts of material not generally present in this product.

SARA Hazard Category: According to our interpretation of Section 311 and 312 of the SARA Title III regulations, this product is considered, under applicable definitions, to meet the following categories:

AN IMMEDIATE HEALTH HAZARD

SARA 313: This product contains no substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

E. E. Zimmerman Company/Elroy Turpentine Company believes that the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of their use.