

MATERIAL SAFETY DATA SHEET
E-Z TURPENTINE - STEAM DISTILLED

GUM TURPENTINE

E.E. Zimmerman Company/Elroy Turpentine Company Prepared: 12/11/96
P.O. Box 111254 HCULES #857 2111 0100-03
Pittsburgh, PA 15238
(412) 963-0949

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
3 - Serious Health 2 Health Not Determined
2 - Moderate Flammability 3 Flammability Not Determined
1 - Slight Reactivity 0 Reactivity Not Determined
0 - Minimal

Section 2. HAZARDOUS INGREDIENTS & EXPOSURE LIMITS

WARNING! FLAMMABLE LIQUID - May cause eye, skin and respiratory tract irritation. Vapor may cause drowsiness and dizziness. If swallowed, vomiting may cause fatal lung damage.

RECOMMENDED AIRBORNE LEVELS (1)

CHEMICAL AND COMMON NAME CAS # OSHA PEL TLV-TWA 1992-93
STEAM DISTILLED TURPENTINE 8006-64-2 100 ppm

Section 3. TYPICAL PHYSICAL & CHEMICAL CHARACTERISTICS

BOILING POINT: 156-170 C (313-338 F)

VAPOR PRESSURE AT 20 C: 4 mmHg

VAPOR DENSITY: Heavier than air

VOLATILE: (WT.), %: 99

FREEZING POINT: Not Determined

SOLUBILITY IN WATER: Negligible

APPEARANCE: Colorless liquid.

ODOR: Typical Pine Odor.

SPECIFIC GRAVITY: 0.86

pH: N/A

EVAPORATION RATE: Slower than Butyl Acetate

Section 4. FIRE, EXPLOSION & REACTIVITY HAZARD DATA

WARNING !! FLAMMABLE LIQUID.

FLASH POINT:

36 C (96 F) Setflash Closed Cup

FLAMMABLE LIMITS:

Lower: 0.8% Upper: N/A

AUTOIGNITION TEMPERATURE:

253 C (488 F)

EXTINGUISHING MEDIA:

Water spray, dry chemical, foam, carbon dioxide or halon."

SPECIAL FIREFIGHTING PROCEDURES:

Use self-contained breathing apparatus.

Cool containers with water if exposed to fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None

STABILITY CONSIDERATIONS:

Stable. Susceptible to oxidation and self-heating. Spontaneous heating may occur in such items as

mops, rags, insulation and trash soaked with this material and exposed to air.

INCOMPATIBILITY WITH:

Acids, aluminum chloride, boron trifluoride."

HAZARDOUS DECOMPOSITION PRODUCTS:

None

HAZARDOUS PRODUCTS OF COMBUSTION:

Carbon monoxide, carbon dioxide and smoke. Depending on conditions, some aliphatic aldehydes and carboxylic acids also may be formed.

HAZARDOUS POLYMERIZATION:

Will not occur.

Section 5. HEALTH HAZARD DATA

WARNING! May cause eye, skin and respiratory tract irritation. Vapor may cause drowsiness and dizziness. If swallowed, vomiting may cause fatal lung damage.

SIGNS AND SYMPTOMS OF OVEREXPOSURE IN THE WORKPLACE:

EYES:

Liquid and vapor may cause eye irritation.

SKIN:

Causes defatting of the skin which can lead to irritation and dermatitis.

INHALATION:

Vapor may cause central nervous system depression and mucous membrane irritation. Symptoms of overexposure are light-headedness (dizziness), headache, intoxication which could lead to unconsciousness. Vapors may also cause irritation of the upper respiratory tract.

INGESTION:

May cause stomach pain, nausea and vomiting, irritation of mouth and throat. Aspiration into the lungs after ingestion will cause severe lung damage (pulmonary edema and hemorrhage) which could be fatal.

EMERGENCY & FIRST AID PROCEDURES:

EYES:

In case of contact, immediately flush with plenty of low-pressure water for at least 15 minutes. Remove any contact lenses to ensure thorough flushing. Call a physician.

SKIN:

Promptly flush with running water. Remove contaminated clothing. Wash clothing before reuse.

INHALATION:

Remove to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

INGESTION:

If swallowed, DO NOT induce vomiting. Call a physician. Get immediate medical attention.

NOTE TO PHYSICIAN:

This material contains a hydrocarbon solvent. Aspiration into the lungs could cause fatal chemical pneumonitis.

MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE: None known.

PRIMARY ROUTES OF ENTRY:

Skin, inhalation

CANCER INFORMATION:

The National Toxicology Program (NTP) concluded that two-year gavage studies with d-Limonene, a component of this product, indicate clear evidence of carcinogenic activity in male rats, but not in female rats, nor in male or female mice. However, investigation of the metabolism of d-Limonene in various species suggests these findings are not relevant to human risk assessment. d-Limonene is not listed as a carcinogen by the National Toxicology Program (NTP). It is not regulated as a carcinogen by the Occupational Safety and Health Administration (OSHA) and has not been evaluated by the International Agency for Research on Cancer (IARC).

Other components of this product are not listed as carcinogens by the NTP.

They are not regulated as a carcinogen by OSHA and have not been evaluated by the IARC.

REPORTED HUMAN EFFECTS:

ACUTE:

Lethal dose between 1,100 and 2,400 mg/kg, or approximately 4 to 6 oz. for an adult. Coughing and choking often occur after ingestion. Aspiration may lead to pulmonary edema and pneumonitis. Accidental eye contact leads to severe pain with reversible corneal injury.

SUBACUTE:

Exposure to vapor at 720 to 1,100 ppm for 3.5 to 4 hours causes eye irritation, headache, dizziness, nausea, chest pain and visual disturbances.

REPORTED ANIMAL EFFECTS:

Oral LD50 (rat) - 1,400 to 5,200 mg/kg

Inhal LC50 (rat-6 hr.) - 2,430 ppm (13.5 mg/L)

Skin irritation (rabbit) - slight

Eye irritation (rabbit) - moderate, reversible

DEVELOPMENTAL TOXICITY:

d-Limonene, a component of this product, administered to pregnant rats, mice and rabbits at daily dosage

levels equivalent to approximately half the acutely lethal dose produced maternal toxicity and embryo/fetotoxicity but no evidence of teratogenicity. Toxicity was reflected primarily in weight loss or reduced weight gain and, in fetuses, delayed development.

Section 6. SPILL PROCEDURES & WASTE DISPOSAL

SPILL PROCEDURES:

Remove source of ignition.

SMALL SPILLS:

Add inert absorbent, sweep up, and place the material in metal drums for disposal.

LARGE SPILLS:

Dike to contain and pump into drums for use or disposal.

WASTE DISPOSAL METHOD:

Incineration in accordance with local, state and federal regulations.

Refer to Section VIII for specific Federal Environmental and Regulatory Data regarding use or disposal of this product.

Section 7. APPLICABLE CONTROL MEASURES

APPROPRIATE HYGIENIC PRACTICES:

Avoid contact with eyes, skin and clothing.

Avoid breathing vapors.

Do not swallow.

Wash thoroughly after handling and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

PERSONAL PROTECTIVE EQUIPMENT:

Impervious gloves.

Safety glasses.

Appropriate respiratory protection is required when exposure to an airborne contaminant is likely to exceed acceptable limits. Respirators should be selected and used in accordance with OSHA, Subpart I (29 CFR 1910.134) and manufacturer's recommendations.

Appropriate protective clothing.

WORK PRACTICES:

Eyewash fountains and safety showers should be easily accessible. Discard properly such items as rags, insulation and trash soaked with this material and exposed to air, as spontaneous heating may occur.

HANDLING AND STORAGE PRECAUTIONS:

This product may react with acids, aluminum chloride or boron trifluoride and should not be stored near such materials. Keep away from heat, sparks and open flame. Eliminate ignition sources and prevent buildup of static electric charges.

ENGINEERING CONTROLS:

Adequate ventilation should be provided to keep vapor concentrations below acceptable exposure limits. Discharge from the ventilation system should comply with applicable air pollution control regulations.

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE:

Eliminate ignition sources. Completely isolate and thoroughly clean all equipment, piping or vessels before beginning maintenance or repairs.

Section 8. ENVIRONMENTAL & REGULATORY DATA

The following environmental and regulatory data are provided to assist users of this product in defining their regulatory environmental compliance obligations.

A. PRODUCT COMPOSITION:

PRODUCT (P) or TRADE NAME or

COMPONENT NO. CHEMICAL COMPONENT CAS # WT. PERCENT

E-Z STEAM DISTILLED TURPENTINE

P Terpene liquid 8006-64-2 100

B. SARA TITLE III (See footnotes)

SEC. 304 SEC. 302

COMPONENT EHS EHS SEC. 311/312 SEC. 313 TOXIC

NO. RQ (lbs) TPQ (lbs) HAZARD CATEGORY CHEMICAL (YES, NO)

P N/A N/A HC-1, HC-3 NO

C. CERCLA (40 CFR 302.4 HAZARDOUS SUBSTANCE & REPORTABLE QUANTITIES)

This product does NOT contain any hazardous substances listed in 40 CFR 302.4.

D. RCRA INFORMATION:

This product exhibits the characteristic of ignitability (D001) as defined in hazardous waste regulation 40 CFR 261, Subpart C. Therefore, disposal of unused product must comply with the hazardous waste regulations.

E. TSCA STATUS:

The components of this product are included on the EPA TSCA Chemical Substance Inventory.

FOOTNOTES:

SEC. 302 - Threshold Planning Quantity, Extremely Hazardous Substance (EHS) (40 CFR 355 Emergency Planning and Notification regulations).

N/A: This chemical is not an EHS. Therefore, there is no Threshold Planning Quantity (TPQ).

SEC. 304 - Reportable Quantity for Releases of an EHS (40 CFR 355, Appendix A).

N/A: This chemical is not an EHS. Therefore, there is no Reportable Quantity (RQ).

SEC. 311/312 - 40 CFR 370 Hazardous Chemical Reporting Requirements Hazard Categories.

Hazard Categories

HC-1 Immediate (acute) health hazard

HC-2 Delayed (chronic) health hazard

HC-3 Fire hazard

HC-4 Sudden release of pressure hazard

HC-5 Reactive hazard

NHH Not a health hazard

NPH Not a physical hazard

SEC. 313 - 40 CFR 372 Toxic Chemical Release Reporting Requirements

NO: This component is NOT 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 Toxic Chemical Reporting requirements.

YES: This component is 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 Toxic Chemical Reporting requirements. Percent composition (or estimated range) is listed above.

N/A: This product is a mixture. As such, it is not listed as a Toxic Chemical under 40 CFR 372, Sect. 313 reporting requirements. Reportable constituents are listed individually where they exceed threshold concentration limits.

EXPLANATION OF ACRONYMS:

HMIS:

Hazardous Materials Identification System rating for product as supplied.

CASRN:

Chemical Abstracts Service Registry Number.

AIHA WEEL:

American Industrial Hygienists Association - Workplace Environmental Exposure Level.

OSHA:

Occupational Safety and Health Administration.

TLV:

Registered trademark of American Conference of Governmental Industrial Hygienists for Threshold Limit Values.

TWA:

Time Weighted Average.

STEL:

Short Term Exposure Limit (See 29 CFR 1910.1048, March 1, 1989, rev.)

C:

Ceiling exposure concentration (See 29 CFR 1910.1000, March 1, 1989, rev.)

SKIN:

May be absorbed through skin (See 29 CFR 1910.1048, March 1, 1989, rev.)

N/A:

Not Applicable.

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.