

# Material Safety Data Sheet

**Freeman Thinner #45**

Date of Preparation: January 3, 2007

Revision:

## Section 1 - Chemical Product and Company Identification

**Product/Chemical Name:** Freeman Thinner #45

**Chemical Family:** Solvent

**CAS Number:** N/A

**Other Designations:** N/A

**General Use:** N/A

**Manufacturer:** Freeman Manufacturing and Supply Company, 1101 Moore Road, Avon, OH 44011,  
Phone (440)934-1902, FAX (440)934-7200, Hours of Operation 8-5, Emergency Phone Number 800-424-9300.

<b>HMIS</b>	
<b>H</b>	3
<b>F</b>	3
<b>R</b>	0
<b>PPE†</b>	
†Sec. 8	

☆☆☆☆☆ **Emergency Overview** ☆☆☆☆☆  
Highly Flammable, Harmful by Inhalation, Eye Irritant

## Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt or % vol	HAP
Toluene	108-88-3	40-50	Yes
VM & P Naphtha	64742-89-8	10-20	No
Isobutyl Acetate	110-19-0	5-15	No
Acetone	67-64-1	5-10	No
Methanol	67-56-1	5-10	Yes
Isopropanol	67-63-0	0 - 5	No

Material	OSHA PEL		ACGIH TLV		Vapor Pressure
	TWA	STEL	TWA	STEL	
Toluene	200 ppm	none estab.	50 ppm	none estab.	22 mmHg @ 68°F
VM & P Naphtha	500 ppm	none estab.	300 ppm	none estab.	11 mmHg @ 68°F
Isobutyl Acetate	150 ppm	none estab.	150 ppm	none estab.	15 mmHg @ 68°F
Acetone	1000 ppm	none estab.	500 ppm	750 ppm	184 mmHg @ 68°F
Methanol	200 ppm	none estab.	200 ppm	250 ppm	98 mmHg @ 68°F
Isopropanol	400 ppm	none estab.	200 ppm	400 ppm	33 mmHg @ 68°F

## Section 3 - Physical and Chemical Properties

**Appearance and Odor:** Liquid, water-white with ketone odor.

**Vapor Pressure:** 60.3 mm Hg @ 20 °C

**Nonexempt VOC Partial Pressure:**  
37.1 mm Hg @ 20°C

**Vapor Density (Air=1):** 2.7

**Density:** 7.012 lbs/gal

**Specific Gravity (H<sub>2</sub>O=1 at 4°C):** 0.842

**Refractive Index:** 1.432

**Water Absorption:** Appreciable

**Mixed Aniline Point (Acid Insol):** 21 C / 71 F

**Boiling Range:** 56 109 225 °C (113 229 437 °F)

**VOC'S (>0.44 lbs/sq.in.):** 93.6 Vol. %; 788.1 g/L; 6.564 Lbs/Gal

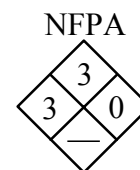
**Total VOC'S (TVOC):** 100.0 Vol. %; 841.8 g/L; 7.011 Lbs/Gal

**Nonexempt VOC (CVOC) :** 85.0 Vol. %; 708.0 g/L; 5.897 Lbs/Gal

**Hazardous Air Pollutants (HAPS):** 55.9 Wt.%; 470.7 g/L; 3.920 Lbs/Gal

## Section 4 - Fire-Fighting Measures

**Flash Point:** -16°C / 2°F (Lowest Component)  
**Flash Point Method:** TCC  
**Autoignition Temperature:** 290°C (555°F) (Lowest Component)  
**LEL:** 2.1% by volume  
**UEL:** N/A



**Flammability Classification:** Class 1B

**Extinguishing Media:** NFPA Class B extinguishers (carbon dioxide or foam) for Class 1B liquid fires.

**Fire-Fighting Instructions:** Water spray may be ineffective on fire but can protect fire fighters and cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, d bunker coat, gloves, and rubber boots). Use NIOSH approved positive-pressure self-contained breathing apparatus.

**Unusual Fire or Explosion Hazards:** EXTREMELY FLAMMABLE! VAPORS CAN CAUSE FLASH FIRE! Keep container tightly closed. Isolate from oxidizers, heat, sparks, electric equipment and open flame. Closed containers may explode if exposed to extreme heat. Applying to hot surfaces requires special precautions. Empty containers very hazardous! Continue all label precautions!

## Section 5 - Stability and Reactivity

**Stability:** Stable.

**Conditions to Avoid:** Isolate from oxidizers, heat, sparks, electric equipment and open flame.

**Materials to Avoid:** Isolate from strong oxidizers such as permangates, chromates, and peroxides.

**Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide from burning.

**Hazardous Polymerization:** Will not occur.

## Section 6 - Health Hazard Information

### Potential Health Effects

#### Acute Effects

**Inhalation:** Anesthetic. Irritates respiratory tract. Acute overexposure can cause serious nervous system depression. Vapor harmful. Breathing vapor can cause irritation. Acute overexposure can cause damage to kidneys, blood, nerves, liver, and lungs. Repeated exposure over TLV can cause blindness.

**Eye & Skin Contact:** Primary irritation to skin, defatting, dermatitis. Absorption thru skin increases exposure. Primary irritation to eyes, redness, tearing, blurred vision. Liquid can cause eye irritation. Wash thoroughly after handling.

**Ingestion:** Can be fatal or cause blindness if swallowed. Cannot be made non-poisonous. POISON!! Can cause irreversible nervous system damage and death. Harmful or fatal if swallowed. Swallowing can cause abdominal irritation, nausea, vomiting and diarrhea.

**Medical Conditions Aggravated:** Persons with severe skin, liver or kidney problems should avoid use.

**Cancer, Reproductive & other Chronic Hazards:** Leukemia been reported in humans from Benzene. This product contains less than 153 ppm of Benzene. Not considered hazardous in such low concentrations. Absorption thru skin may be harmful. Studies with laboratory animals indicate this product can cause damage to fetus.

### Emergency and First Aid Procedures

**Inhalation:** After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped give artificial respiration. Call a physician immediately.

**Eye Contact:** Immediately flush with plenty of water for 15 minutes. Call a physician.

**Skin Contact:** Immediately remove contaminated clothing. Wash thoroughly with soap and water. Wash contaminated clothing before reuse (discard contaminated shoes).

**Ingestion:** Induce vomiting promptly using physician's instructions or by having patient stick finger down throat. After vomiting has been induced, give 2 teaspoonsful of baking soda in a glass of water. CALL A PHYSICIAN. Never give anything by mouth to an unconscious person. Have patient lie down and keep warm. Cover eyes to exclude light.

## Section 7 - Spill, Leak, and Disposal Procedures

#### Accidental Release Measures:

Containment Techniques: Stop spill at source. Dike area and contain.

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**Clean-up Procedures:** Clean up remainder with absorbent materials. Mop up and dispose of. Person without proper protection should be kept from area until cleaned up.

**Other Precautions:** Vapors may ignite explosively and spread long distances. Prevent vapor buildup. Put out pilot lights and turn off heaters, electrical equipment and other ignition sources during use and until all vapors are gone.

**Disposal:** Recycle or dispose of observing local, state, federal health, safety, and pollution laws. If questions exist, contact the appropriate agencies. Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable Federal, state, and local regulations.

**Toxicological Information:****Mammalian Information:**

Material	CAS #	Lowest Known Lethal Dose Data
Methanol	67-56-1	1000.0 mg/kg (Man) Lowest Known LD50 (Oral)
Toluene	108-88-3	4000.0 mg/kg (Rabbits) Lowest Known LD50 (Skin)

**Ecological Information:****Aquatic Animal Information:**

The most sensitive known aquatic group to any component of this product is:

Chub 250 ppm or mg/L (24 hour exposure). Keep out of sewers and natural water supplies.

**Mobility:** This material is a mobile liquid.

**Degradability:** This product is partially biodegradable.

**Accumulation:** This product does not accumulate or biomagnify in the environment.

**Regulatory Information****EPA Regulations:**

**TSCA Inventory Status:** All components of this product are on the TSCA list.

**SARA Section 311/312 Hazards:** Acute Health, Fire

**SARA Title III Section 313 Supplier Notification:** This product contains the indicated <\*> toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right-To-Know Act of 1986 & of 40 CFR 372. This information must be included in all MSDSs that are copied and distributed for this material.

SARA TITLE III Ingredients	CAS #	Wt. %	(Reg. Section)	RQ (LBS)
*Toluene	108-88-3	46	(311, 312, 313, RCRA)	1000
Light Aliphatic Solvent Naphtha	64742-89-8	15	(311, 312)	None
Isobutyl Acetate	110-19-0	10	(311, 312)	None
Acetone	67-64-1	9	(311, 312)	5000
*Methanol	67-56-1	9	(311, 312, 313, RCRA)	5000

The "RQ" for Toluene is exceeded by having >2150 lbs. of this product in one container.

In addition to EPA Hazardous Air Pollutants showing "Yes" under "HAP" above, using manufacturer's data, based on EPA Method 311, the following EPA Hazardous Air Pollutants may be present in trace amounts (less than 0.1%): Benzene, Mixed Xylenes, Ethylbenzene

**State Regulations:**

California Proposition 65: Contains - Benzene, toluene, xylene and ethyl benzene

Materials on the New Jersey Right to Know List: Toluene, methanol, isopropyl alcohol, isobutyl acetate

Materials on the Pennsylvania Right to Know List: Toluene, methanol, isopropyl alcohol, isobutyl acetate

Materials on the Massachusetts Right to Know List: Toluene, methanol, isopropyl alcohol

**International Regulations:**

The components of this product are listed on the chemical inventories of the following countries: Australia, Canada, Europe (EINECS), Japan, Korea, United Kingdom.

**Section 8 - Exposure Controls / Personal Protection**

**Exposure Controls:** Use vapor, mist gas mask within use limits, or ventilate to keep vapors of this material below 45 ppm. If over TLV, in accordance with 29 CFR 1910.134, use NIOSH approved positive-pressure self-contained breathing apparatus. Consult Safety Equipment supplier. Use explosion-proof equipment.

**Ventilation:** Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

**Personal Protections:** Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear gloves, apron and footwear impervious to this material. Wash clothing before reuse.

**Work & Hygienic Practices:** Provide readily accessible eye wash stations and safety showers. Wash at end of each workshift and before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

**Section 9 - Special Precautions and Comments**

**Handling:** Isolate from oxidizers, heat, sparks, electric equipment and open flame. Use only with adequate ventilation. Avoid breathing of vapor or spray mist. Avoid contact with skin and eyes. Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear gloves, apron and footwear impervious to this material. Wash clothing before reuse. Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, saw, drill, braze, or weld. Empty container very hazardous! Continue all label precautions.

**Storage:** Vapors may ignite explosively and spread long distances. Prevent vapor buildup. Put out pilot lights and turn off heaters, electric equipment and other ignition sources during use and until all vapors are gone. Do not store above 49 °C/120°F. Store large amounts in structures made for OSHA Class 1B liquids. Keep containers tightly closed and upright when not in use to prevent leakage.

**DOT Transportation Data (49 CFR 172.101):**

**Shipping Name:** Paint Related Material

**Shipping Symbols:**

**Hazard Class:** 3, UN 1263

**ID No.:**

**Packing Group:** II

**Label:** Flammable Liquid

**Special Provisions (172.102):**

**Emergency Response**

**Guidebook Number:** 131

**Packaging Authorizations**

**a) Exceptions:**

**b) Non-bulk Packaging:**

**c) Bulk Packaging:**

**IATA / ICAO:**

Flammable Liquids, Toxic, n.o.s. (Toluene, Methanol), 3, UN1992, PG-II

**IMO / IMDG:**

Flammable Liquids, Toxic, n.o.s. (Toluene, Methanol), 3, UN 1992, PG II.

**Quantity Limitations**

**a) Passenger, Aircraft, or Railcar:**

**b) Cargo Aircraft Only:**

**Vessel Stowage Requirements**

**a) Vessel Stowage:**

**b) Other:**

**Prepared By:**

**Revision Notes:**

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