Material Safety Data Sheet

Print Date 30-Mar-2011 **Revision Date** 30-Mar-2011 **Revision Number** 1

1. PRODUCT AND COMPANY IDENTIFICATION

Common name	NO. 45 THINNER
Product code	F041-0045
Trade name	THINNER CLEAR
Product Class	PAINT THINNER
Manufacturer	Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency telephone	800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!

FLAMMABLE LIQUID AND VAPOR.
POISON, MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED.
HARMFUL IF INHALED.
HARMFUL OR FATAL IF SWALLOWED.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.

Potential health effects

Principle Routes of Exposure Eye contact, Inhalation, Skin contact.

Acute effects

Eyes	Moderately irritating to the eyes.
Skin	Irritating to skin.
Inhalation	Irritating to respiratory system.
Ingestion	May be harmful if swallowed. Do not induce vomiting: may contain petroleum distillates and/or aromatic solvents. Aspiration may cause pulmonary edema and pneumonitis.

Chronic effects
NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions Central nervous system. Gastrointestinal tract. Liver disorders. Skin disorders. Kidney disorders. Respiratory disorders.

Interactive effects Use of alcoholic beverages may enhance toxic effects.

Potential environmental effects See Section 12 for additional Ecological Information

Target Organ Effects Blood, Central nervous system, Gastrointestinal tract, Eyes, Liver, Reproductive System, Respiratory system, Skin, Kidney

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Component	CAS-No	Weight %
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	108-65-6	30 - 60
ETHANOL	64-17-5	30 - 60
ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)	2807-30-9	1 - 5
METHANOL (SKIN)	67-56-1	1 - 5
ETHYL ACETATE	141-78-6	1 - 5
METHYL ISOBUTYL KETONE	108-10-1	0.1 - 1

4. FIRST AID MEASURES

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes.

Skin contact: Wash off immediately with soap and plenty of water.

Ingestion: If swallowed, do not induce vomiting. Get medical attention immediately.

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed.

5. FIRE-FIGHTING MEASURES

Flammable properties Flammable.

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Contact with water may cause violent frothing. Use: Carbon dioxide (CO2) - Foam - Dry chemical

Hazardous decomposition products Oxides of carbon, hydrocarbons.

Specific hazards arising from the chemical
Thermal decomposition can lead to release of irritating gases and vapours. In the event of fire and/or explosion do not breathe fumes.

Protective equipment and precautions for firefighters
Use water spray to cool unopened containers. In the event of fire, wear self-contained breathing apparatus. Keep away from heat/sparks/open flames/hot surfaces. May cause heat and pressure build-up in closed containers. Solvent vapors are heavier than air and may spread along floors. Flash back possible over considerable distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

Methods for cleaning up If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Other information Not applicable

7. HANDLING AND STORAGE

Handling

Close container after each use. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. If splashes are likely to occur, wear goggles. Wear protective gloves/clothing. Do not burn, or use a cutting torch on, the empty drum. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage

Keep away from heat, sparks and flame. VAPORS MAY CAUSE FLASH FIRE. Use only in an area containing flame proof equipment. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	Quebec TWAEV	Ontario TWAEV	Mexico OEL (TWA)
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE				TWA: 50 ppm TWA; 270 mg/m^3 TWA	
ETHANOL	: 1000 ppm STEL	: 1000 ppm TWA; 1900 mg/m^3 TWA	TWA: 1000 ppm TWAEV; 1880 mg/m^3 TWAEV	STEL: 1000 ppm STEL	: 1000 ppm TWA; 1900 mg/m^3 TWA
ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)				TWA: 25 ppm TWA; 110 mg/m^3 TWA Skin	
METHANOL (SKIN)	: 200 ppm TWA Skin : 250 ppm STEL	: 200 ppm TWA; 260 mg/m^3 TWA : 250 ppm STEL; 325 mg/m^3 STEL Skin	TWA: 200 ppm TWAEV; 262 mg/m^3 TWAEV STEL: 250 ppm STEV; 328 mg/m^3 STEV Skin	TWA: 200 ppm TWA STEL: 250 ppm STEL Skin	: 200 ppm TWA; 260 mg/m^3 TWA : 250 ppm STEL; 310 mg/m^3 STEL
ETHYL ACETATE	: 400 ppm TWA	: 400 ppm TWA; 1400 mg/m^3 TWA	TWA: 400 ppm TWAEV; 1440 mg/m^3 TWAEV	TWA: 400 ppm TWA	: 400 ppm TWA; 1400 mg/m^3 TWA
METHYL ISOBUTYL KETONE	: 20 ppm TWA : 75 ppm STEL	: 50 ppm TWA; 205 mg/m^3 TWA : 75 ppm STEL; 300 mg/m^3 STEL : 100 ppm TWA; 410 mg/m^3 TWA	TWA: 50 ppm TWAEV; 205 mg/m^3 TWAEV STEL: 75 ppm STEV; 307 mg/m^3 STEV	TWA: 50 ppm TWA STEL: 75 ppm STEL	: 50 ppm TWA; 205 mg/m^3 TWA : 75 ppm STEL; 307 mg/m^3 STEL

Engineering measures Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Skin protection Lightweight protective clothing, Apron, Impervious gloves

Eye/face protection If splashes are likely to occur, wear Goggles.

Respiratory protection **Use only with adequate ventilation.** Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Avoid breathing dust created by cutting, sanding, or grinding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point	16°C / 61.0°F
Boiling range	64 - 154°C / 147.0 - 310.0°F
Upper explosion limit	No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

Lower explosion limit	No information available
Evaporation rate	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	.88699 g/cm3
Density	7.38111 lbs/gal
Volatile organic compounds (VOC) content	7.329 lbs/gal
Volatile by weight	100.0000 %
Volatile by volume	100.0000 %

10. STABILITY AND REACTIVITY

Chemical stability	Stable.	**Conditions to avoid**	Heat, flames and sparks. Reacts with air to form peroxides.
Incompatible products	Strong oxidizing agents. Acids. Alkalines. Amines.	**Possibility of hazardous reactions**	None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	8532 mg/kg (Rat)	5000 mg/kg (Rabbit)	
ETHANOL	7060 mg/kg (Rat)		124.7 mg/L (Rat) 4 h
ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)	3089 mg/kg (Rat)	960 µL/kg (Rabbit)	
METHANOL (SKIN)	5628 mg/kg (Rat)	15800 mg/kg (Rabbit)	64000 ppm (Rat) 4 h 83.2 mg/L (Rat) 4 h
ETHYL ACETATE	5620 mg/kg (Rat)	20 mL/kg (Rabbit) 18000 mg/kg (Rabbit)	
METHYL ISOBUTYL KETONE	2080 mg/kg (Rat)	16000 mg/kg (Rabbit)	8.2 mg/L (Rat) 4 h

Irritation No information available
Corrosivity No information available
Sensitization No information available

Chronic toxicity

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	ACGIH	IARC	NTP	OSHA	Mexico
ETHANOL	A3	Group 1		X	
METHYL ISOBUTYL KETONE	A3				

Mutegenicity No information available
Reproductive effects No information available
Developmental effects No information available
Teratogenicity No information available
Target Organ Effects Blood, Central nervous system, Gastrointestinal tract, Eyes, Liver, Reproductive System, Respiratory system, Skin, Kidney.
Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

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Component	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE		LC50= 161 mg/L Pimephales promelas 96 h		EC50 > 500 mg/L 48 h
ETHANOL		LC50 12.0 - 16.0 mL/L Oncorhynchus mykiss 96 h LC50 13400 - 15100 mg/L Pimephales promelas 96 h LC50> 100 mg/L Pimephales promelas 96 h	EC50 = 35470 mg/L 5 min EC50 = 34634 mg/L 30 min	LC50 9268 - 14221 mg/L 48 h EC50 = 10800 mg/L 24 h EC50 = 2 mg/L 48 h
METHANOL (SKIN)		LC50 13500 - 17600 mg/L Lepomis macrochirus 96 h LC50 18 - 20 mL/L Oncorhynchus mykiss 96 h LC50 19500 - 20700 mg/L Oncorhynchus mykiss 96 h LC50= 28200 mg/L Pimephales promelas 96 h LC50> 100 mg/L Pimephales promelas 96 h	EC50 = 43000 mg/L 5 min EC50 = 40000 mg/L 15 min EC50 = 39000 mg/L 25 min	
ETHYL ACETATE	EC50 = 3300 mg/L 48 h	LC50 220-250 mg/L Pimephales promelas 96 h LC50 352-500 mg/L Oncorhynchus mykiss 96 h LC50= 484 mg/L Oncorhynchus mykiss 96 h	EC50 = 1180 mg/L 5 min EC50 = 5870 mg/L 15 min EC50 = 7400 mg/L 2 h EC50 = 1500 mg/L 15 min	EC50 = 560 mg/L 48 h
METHYL ISOBUTYL KETONE	EC50 = 400 mg/L 96 h	LC50 496-514 mg/L Pimephales promelas 96 h	EC50 = 79.6 mg/L 5 min	EC50 = 170 mg/L 48 h

13. DISPOSAL CONSIDERATIONS

Waste disposal methods Keep container tightly closed. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

Contaminated packaging Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

DOT Ground Transportation Only. Call TNEMEC Traffic Department - 816-474-3400 for other modes of Transportation.

Proper shipping name UN1263,PAINT RELATED MATERIAL,3,PGII,ERG 128

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
CHINA Complies

ENCS	Does not Comply
KECL	Complies
PICCS	Complies
AICS	Complies

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
Component
ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)
METHANOL (SKIN)
METHYL ISOBUTYL KETONE

United States of America Federal Regulations

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values
ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)	2807-30-9	1 - 5	1.0
METHANOL (SKIN)	67-56-1	1 - 5	1.0 % de minimis concentration
METHYL ISOBUTYL KETONE	108-10-1	0.1 - 1	1.0 % de minimis concentration

SARA 311/312 Hazardous Categorization

Chronic Health Hazard	no
Acute Health Hazard	yes
Fire Hazard	yes
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

CERCLA

United States of America State Regulations

California Prop. 65
This product contains the following Proposition 65 chemicals:

Component	CAS-No	California Prop. 65
ETHANOL	64-17-5	Carcinogen Developmental

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
ETHANOL	X	X	X		X
ETHYLENE GLYCOL MONOPROPYL ETHER (SKIN)		X	X	X	
METHANOL (SKIN)	X	X	X	X	X
ETHYL ACETATE	X	X	X		X
METHYL ISOBUTYL KETONE	X	X	X	X	X

Other international regulations

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Classification
B2 Flammable liquid
D2A Very toxic materials

Component	NPRI
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	Part 5 Substance
ETHANOL	Part 5 Substance
METHANOL (SKIN)	Part 1, Group 1 Substance; Part 5 Substance
ETHYL ACETATE	Part 5 Substance
METHYL ISOBUTYL KETONE	Part 1, Group 1 Substance; Part 5 Substance

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 30-Mar-2011

Revision Note No information available

HMIS (Hazardous Material Information System) **Health** 2 **Flammability** 3 **Reactivity** 1

Disclaimer
For specific information regarding occupational safety and health standards, please refer to the Code of Federal Regulations, Title 29, Part 1910.
To the best of our knowledge, the information contained herein is accurate. However, neither the Tnemec Company or any of its subsidiaries assume any liability whatsoever for the accuracy of completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

End of MSDS