Material Safety Data Sheet

Print Date 21-Jun-2011 **Revision Date** 20-Jun-2011 **Revision Number** 2

1. PRODUCT AND COMPANY IDENTIFICATION

Common name	NO. 55 THINNER
Product code	F041-0055
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!

HARMFUL IF INHALED.
MAY CAUSE LUNG INJURY.
MAY CAUSE ALLERGIC RESPIRATORY REACTION; EFFECTS MAY BE PERMANENT.
MAY CAUSE ALLERGIC SKIN REACTION; EFFECTS MAY BE PERMANENT.
HARMFUL OR FATAL IF SWALLOWED.
MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.
MAY CAUSE EYE, SKIN, NOSE, THROAT AND RESPIRATORY TRACT IRRITATION.
COMBUSTIBLE LIQUID AND VAPOR.

Potential health effects

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

Acute effects

Eyes	Moderately irritating to the eyes. Risk of serious damage to eyes.
Skin	Irritating to skin. May cause sensitization by skin contact.
Inhalation	Irritating to respiratory system. May cause allergic respiratory reaction.
Ingestion	May be harmful if swallowed.

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. Skin 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, Eyes, Respiratory system, Skin

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Component	CAS-No	Weight %
TOLUENE DIISOCYANATE (TID) POL		60 - 100
AROMATIC HYDROCARBON MIXTURE	64742-95-6	10 - 30
1,2,4-TRIMETHYLBENZENE	95-63-6	10 - 30
1,3,5-TRIMETHYLBENZENE	108-67-8	1 - 5
DIETHYLBENZENE	25340-17-4	1 - 5
XYLENE	1330-20-7	0.1 - 1
TOLUENE DIISOCYANATE (TDI) MONOMER	584-84-9	0.1 - 1
ETHYL BENZENE	100-41-4	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 Combustible material.

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. Oxides of nitrogen. Hydrogen cyanide.

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. Use only in an area containing flame proof equipment. 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)
1,2,4-TRIMETHYLBENZENE	TWA: 25 ppm		TWA: 25 ppm TWA: 123 mg/m^3	TWA: 25 ppm TWA: 123 mg/m^3	TWA: 125 mg/m^3 TWA: 25 ppm STEL: 170 mg/m^3 STEL: 35 ppm
1,3,5-TRIMETHYLBENZENE	TWA: 25 ppm		TWA: 25 ppm TWA: 123 mg/m^3	TWA: 25 ppm TWA: 123 mg/m^3	TWA: 125 mg/m^3 TWA: 25 ppm STEL: 170 mg/m^3 STEL: 35 ppm
XYLENE	: 100 ppm TWA : 150 ppm STEL	: 100 ppm TWA; 435 mg/m^3 TWA : 150 ppm STEL; 655 mg/m^3 STEL	TWA: 100 ppm TWAEV; 434 mg/m^3 TWAEV STEL: 150 ppm STEV; 651 mg/m^3 STEV	TWA: 100 ppm TWA STEL: 150 ppm STEL	: 100 ppm TWA; 435 mg/m^3 TWA : 150 ppm STEL; 655 mg/m^3 STEL
TOLUENE DIISOCYANATE (TDI) MONOMER	: 0.005 ppm TWA : 0.02 ppm STEL	: 0.005 ppm TWA; 0.04 mg/m^3 TWA : 0.02 ppm STEL; 0.15 mg/m^3 STEL : 0.02 ppm Ceiling; 0.14 mg/m^3 Ceiling	TWA: 0.005 ppm TWAEV; 0.036 mg/m^3 TWAEV STEL: 0.02 ppm STEV; 0.14 mg/m^3 STEV	TWA: 0.005 ppm TWA (designated substance regulation, listed under Isocyanates, organic compounds); 0.005 ppm TWA (applies to workplaces to which the designated substance regulation does not apply) STEL: 0.02 ppm STEL CEV: 0.02 ppm Ceiling (designated substances regulation)	: 0.02 ppm TWA; 0.14 mg/m^3 TWA
ETHYL BENZENE	: 100 ppm TWA : 125 ppm STEL	: 100 ppm TWA; 435 mg/m^3 TWA : 125 ppm STEL; 545 mg/m^3 STEL	TWA: 100 ppm TWAEV; 434 mg/m^3 TWAEV STEL: 125 ppm STEV; 543 mg/m^3 STEV	TWA: 100 ppm TWA STEL: 125 ppm STEL	: 100 ppm TWA; 435 mg/m^3 TWA : 125 ppm STEL; 545 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 Safety glasses with side-shields

Respiratory protection INDIVIDUALS WITH LUNG OR BREATHING PROBLEMS OR PRIOR REACTION TO ISOCYANATES MUST NOT BE EXPOSED TO VAPOR OR SPRAY MIST. Do not breathe vapor or spray mist. Wear an appropriate, properly fitted respirator (NIOSH/MSHA approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. An airline respirator (TC 19C NIOSH/MSHA) is recommended. A vapor-particulate respirator (TC 23C NIOSH/MSHA) may be appropriate where air monitoring demonstrates vapors are less than ten times the applicable exposure limits and the isocyanate concentration is less than its applicable exposure limit. The use of an air-supplied respirator is mandatory whenever the airborne concentration of isocyanate monomer is unknown.

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	39°C / 102.0°F
Boiling range	No information available
Upper explosion limit	No information available
Lower explosion limit	No information available
Evaporation rate	No information available
Vapor pressure	No information available
Vapor density	No information available
Specific Gravity	.97138 g/cm3
Density	8.08334 lbs/gal
Volatile organic compounds (VOC) content	3.127 lbs/gal
Volatile by weight	38.6770 %
Volatile by volume	43.0000 %

10. STABILITY AND REACTIVITY

Chemical stability Stable.

Conditions to avoid Heat, flames and sparks. Amines.

Incompatible products Strong oxidizing agents. Acids. Alkalines. Water, alcohols, amines, strong bases, metal components, surface active materials.

Possibility of hazardous reactions None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
AROMATIC HYDROCARBON MIXTURE	8400 mg/kg (Rat)	2000 mg/kg (Rabbit)	3400 ppm (Rat) 4 h 5.2 mg/L (Rat) 4 h
1,2,4-TRIMETHYLBENZENE	3400 mg/kg (Rat)	3160 mg/kg (Rabbit)	18 g/m^3 (Rat) 4 h
1,3,5-TRIMETHYLBENZENE	5000 mg/kg (Rat)		24 g/m^3 (Rat) 4 h

11. TOXICOLOGICAL INFORMATION

XYLENE	4300 mg/kg (Rat)	1700 mg/kg (Rabbit)	5000 ppm (Rat) 4 h 47635 mg/L (Rat) 4 h
TOLUENE DIISOCYANATE (TDI) MONOMER	5800 mg/kg (Rat)	16 mL/kg (Rabbit)	14 ppm (Rat) 4 h 0.1 mg/L (Rat) 4 h 13.9 ppm (Rat) 4 h 66 ppm (Rat) 1 h
ETHYL BENZENE	3500 mg/kg (Rat)	15354 mg/kg (Rabbit)	17.2 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
TOLUENE DIISOCYANATE (TDI) MONOMER		Group 2B		X	
ETHYL BENZENE	A3	Group 2B		X	

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, Eyes, Respiratory system, Skin.
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
AROMATIC HYDROCARBON MIXTURE		LC50= 9.22 mg/L Oncorhynchus mykiss 96 h		EC50 = 6.14 mg/L 48 h
1,2,4-TRIMETHYLBENZENE		LC50 7.19-8.28 mg/L Pimephales promelas 96 h LC50= 7.72 mg/L Pimephales promelas 96 h		EC50 = 6.14 mg/L 48 h
1,3,5-TRIMETHYLBENZENE		LC50= 3.48 mg/L Pimephales promelas 96 h LC50= 7.72 mg/L Pimephales promelas 96 h		EC50 = 50 mg/L 24 h
XYLENE		LC50= 13.4 mg/L Pimephales promelas 96 h LC50 2.661-4.093 mg/L Oncorhynchus mykiss 96 h LC50 13.5-17.3 mg/L Oncorhynchus mykiss 96 h LC50 13.1-16.5 mg/L Lepomis macrochirus 96 h LC50= 19 mg/L Lepomis macrochirus 96 h LC50 7.711-9.591 mg/L Lepomis macrochirus 96 h LC50 23.53-29.97 mg/L Pimephales promelas 96 h LC50= 780 mg/L Cyprinus carpio 96 h LC50> 780 mg/L Cyprinus carpio 96 h LC50 30.26-40.75 mg/L Poecilia reticulata 96 h	EC50 = 0.0084 mg/L 24 h	EC50 = 3.82 mg/L 48 h LC50 = 0.6 mg/L 48 h

Component	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia
ETHYL BENZENE	EC50 = 4.6 mg/L 72 h EC50 > 438 mg/L 96 h EC50 2.6 - 11.3 mg/L 72 h EC50 1.7 - 7.6 mg/L 96 h	LC50 11.0-18.0 mg/L Oncorhynchus mykiss 96 h LC50= 4.2 mg/L Oncorhynchus mykiss 96 h LC50 7.55-11 mg/L Pimephales promelas 96 h LC50= 32 mg/L Lepomis macrochirus 96 h LC50 9.1-15.6 mg/L Pimephales promelas 96 h LC50= 9.6 mg/L Poecilia reticulata 96 h	EC50 = 9.68 mg/L 30 min EC50 = 96 mg/L 24 h	EC50 1.8 - 2.4 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 PAINT & RELATED MATERIAL-(NMFC 149980 SUB2)

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not Comply
CHINA	Complies
ENCS	Complies
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
XYLENE
TOLUENE DIISOCYANATE (TDI) MONOMER
ETHYL BENZENE

United States of America Federal Regulations

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values
1,2,4-TRIMETHYLBENZENE	95-63-6	10 - 30	1.0 % de minimis concentration
XYLENE	1330-20-7	0.1 - 1	1.0 % de minimis concentration

TOLUENE DIISOCYANATE (TDI) MONOMER	584-84-9	0.1 - 1	0.1 % de minimis concentration 1.0 % de minimis concentration (includes only those chemicals that are specifically listed, Chemical Category N120)
ETHYL BENZENE	100-41-4	0.1 - 1	0.1 % de minimis concentration

SARA 311/312 Hazardous Categorization

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

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
XYLENE	100 lb RQ			X
ETHYL BENZENE	1000 lb RQ	X	X	X

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
TOLUENE DIISOCYANATE (TDI) MONOMER		100 lb EPCRA RQ

United States of America State Regulations

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

Component	CAS-No	California Prop. 65
TOLUENE DIISOCYANATE (TDI) MONOMER	584-84-9	Carcinogen
ETHYL BENZENE	100-41-4	Carcinogen

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
1,2,4-TRIMETHYLBENZENE	X	X	X	X	X
1,3,5-TRIMETHYLBENZENE	X	X	X	X	X
DIETHYLBENZENE		X			
XYLENE	X	X	X	X	X
TOLUENE DIISOCYANATE (TDI) MONOMER	X	X	X	X	X
ETHYL BENZENE	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
B3 Combustible liquid
D2A Very toxic materials

Component	NPRI
AROMATIC HYDROCARBON MIXTURE	Part 5 Substance
1,2,4-TRIMETHYLBENZENE	Part 1, Group 1 Substance; Part 5 Substance
XYLENE	Part 1, Group 1 Substance; Part 5 Substance
ETHYL BENZENE	Part 1, Group 1 Substance

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date 20-Jun-2011

Revision Note No information available

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