Material Safety Data Sheet

Preparation Date: 22-Dec-2009 **Revision Date:** 22-Dec-2009 **Revision Number:** 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code	1074-11WHA
Trade Name	ENDURA-SHIELD II WHITE
Contact Manufacturer	Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency Telephone Number	800-535-5053 (INFOTRAC) - TNEMEC REGULATORY DEPT: 816-474-3400

2. HAZARDS IDENTIFICATION

Emergency Overview

WARNING!

FLAMMABLE LIQUID AND VAPOR.
HARMFUL IF INHALED.
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.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

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. Respirable crystalline silica (quartz) can cause silicosis, a fibrosis (scarring) of the lungs.
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. Cancer hazard. Contains crystalline silica which can cause cancer. (Risk of cancer depends on duration and level of exposure.)

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions Central nervous system. Skin disorders.

Interactions with Other Chemicals Use of alcoholic beverages may enhance toxic effects.

Potential Environmental Effects See Section 12 for additional Ecological information

Target Organ Effects Central nervous system, Eyes, Lungs, Peripheral Nervous System (PNS), Respiratory system, Skin

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Component	CAS-No	Weight %
TITANIUM DIOXIDE (TOTAL DUST)	13463-67-7	10 - 30
N-BUTYL ACETATE	123-86-4	11.6745
METHYL N-AMYL KETONE	110-43-0	8.3561
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	4.0343
AMORPHOUS SILICA	7631-86-9	1 - 5
ALUMINUM OXIDES	1344-28-1	1 - 5
XYLENE	1330-20-7	0.7455
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	0.1931

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. Oxides of nitrogen.

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)
TITANIUM DIOXIDE (TOTAL DUST)	TWA: 10 mg/m^3	TWA: 10 mg/m^3 TWA: 15 mg/m^3	TWA: 10 mg/m^3	TWA: 10 mg/m^3	TWA: 10 mg/m^3 STEL: 20 mg/m^3
N-BUTYL ACETATE	TWA: 150 ppm STEL: 200 ppm	TWA: 710 mg/m^3 TWA: 150 ppm STEL: 200 ppm STEL: 950 mg/m^3	TWA: 150 ppm TWA: 713 mg/m^3 STEL: 200 ppm STEL: 950 mg/m^3	TWA: 150 ppm TWA: 710 mg/m^3 STEL: 200 ppm STEL: 950 mg/m^3	TWA: 150 ppm TWA: 710 mg/m^3 STEL: 200 ppm STEL: 950 mg/m^3
METHYL N-AMYL KETONE	TWA: 50 ppm	TWA: 100 ppm TWA: 465 mg/m^3	TWA: 50 ppm TWA: 233 mg/m^3	TWA: 25 ppm TWA: 115 mg/m^3	TWA: 235 mg/m^3 TWA: 50 ppm STEL: 465 mg/m^3 STEL: 100 ppm
CRYSTALLINE SILICA (QUARTZ)	TWA: 0.025 mg/m^3	TWA: 0.1 mg/m^3	TWA: 0.1 mg/m^3	TWA: 0.10 mg/m^3	TWA: 0.1 mg/m^3
ALUMINUM OXIDES	TWA: 1 mg/m^3	TWA: 10 mg/m^3 TWA: 5 mg/m^3 TWA: 15 mg/m^3	TWA: 10 mg/m^3	TWA: 10 mg/m^3	TWA: 10 mg/m^3
XYLENE	TWA: 100 ppm STEL: 150 ppm	TWA: 435 mg/m^3 TWA: 100 ppm STEL: 150 ppm STEL: 655 mg/m^3	TWA: 434 mg/m^3 TWA: 100 ppm STEL: 150 ppm STEL: 651 mg/m^3	TWA: 100 ppm TWA: 435 mg/m^3 STEL: 150 ppm STEL: 650 mg/m^3	TWA: 435 mg/m^3 TWA: 100 ppm STEL: 150 ppm STEL: 655 mg/m^3
CRYSTALLINE SILICA (QUARTZ)	TWA: 0.025 mg/m^3	TWA: 0.1 mg/m^3	TWA: 0.1 mg/m^3	TWA: 0.10 mg/m^3	TWA: 0.1 mg/m^3

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	37°C / 98.0°F
Boiling Point/Range	118 - 154°C / 244.0 - 309.0°F
Upper Exposure Limits	No information available
Lower Exposure Limits	No information available
Evaporation Rate	No information available
Vapour Pressure	No information available
Vapour Density	No information available
Specific Gravity	1.37833

9. PHYSICAL AND CHEMICAL PROPERTIES

Density	11.46980
VOC Content (lbs/gal)	2.645
% Volatile by Weight	23.0620
% Volatile by Volume	36.9701

10. STABILITY AND REACTIVITY

Chemical stability	Stable.	**Conditions to Avoid**	Heat, flames and sparks. Amines. Reacts with air to form peroxides.
Incompatible Products	Strong oxidizing agents. Bases. Acids. Alkalines. Amines. Water, alcohols, amines, strong bases, metal components, surface active materials. Caustics.	**Possibility of Hazardous Reactions**	None under normal processing

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
TITANIUM DIOXIDE (TOTAL DUST)	10000 mg/kg (Rat)		
N-BUTYL ACETATE	10768 mg/kg (Rat)	17600 mg/kg (Rabbit)	390 ppm (Rat) 4 h
METHYL N-AMYL KETONE	1670 mg/kg (Rat)	12600 µL/kg (Rabbit)	
CRYSTALLINE SILICA (QUARTZ)	500 mg/kg (Rat)		
AMORPHOUS SILICA	5000 mg/kg (Rat)	2000 mg/kg (Rabbit)	2.2 mg/L (Rat) 1 h
ALUMINUM OXIDES	5000 mg/kg (Rat)		
XYLENE	4300 mg/kg (Rat)	1700 mg/kg (Rabbit)	47635 mg/L (Rat) 4 h 5000 ppm (Rat) 4 h
CRYSTALLINE SILICA (QUARTZ)	500 mg/kg (Rat)		

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
TITANIUM DIOXIDE (TOTAL DUST)		Group 2B		X	
CRYSTALLINE SILICA (QUARTZ)	A2	Group 1	Known	X	
CRYSTALLINE SILICA (QUARTZ)	A2	Group 1	Known	X	

Mutagenic Effects	No information available
Reproductive Effects	No information available
Developmental Effects	No information available
Teratogenicity	No information available
Target Organ Effects	Central nervous system, Eyes, Lungs, Peripheral Nervous System (PNS), Respiratory system, Skin.

Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
N-BUTYL ACETATE	EC50 = 320 mg/L 96 h EC50 = 674.7 mg/L 72 h	LC50= 18 mg/L Pimephales promelas 96 h LC50= 100 mg/L Lepomis macrochirus 96 h LC50= 62 mg/L Leuciscus idus 96 h	EC50 = 70.0 mg/L 5 min EC50 = 82.2 mg/L 15 min EC50 = 98.9 mg/L 30 min EC50 = 959 mg/L 18 h	EC50 = 44 mg/L 48 h
METHYL N-AMYL KETONE		LC50= 131.0 mg/L Pimephales promelas 96 h		
AMORPHOUS SILICA	EC50 = 440 mg/L 72 h	LC50= 5000 mg/L Brachydanio rerio 96 h		EC50 = 7600 mg/L 48 h
XYLENE		LC50= 13.4 mg/L Pimephales promelas 96 h LC50= 8.05 mg/L Oncorhynchus mykiss 96 h LC50= 16.1 mg/L Lepomis macrochirus 96 h LC50= 26.7 mg/L Pimephales promelas 96 h	EC50 = 0.0084 mg/L 24 h	EC50 = 3.82 mg/L 48 h LC50 = 0.6 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,3,PGIII,ERG 128

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not Comply
CHINA	Does not Comply
ENCS	Does not Comply
KECL	Does not Comply
PICCS	Does not Comply
AICS	Does not Comply

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product contains the following HAPs:
Component
XYLENE

U.S. Federal Regulations

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values
XYLENE	1330-20-7	0.7455	1.0

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

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
N-BUTYL ACETATE	5000 lb			X
XYLENE	100 lb			X

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
N-BUTYL ACETATE	5000 lb	
XYLENE	100 lb	

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Component	CAS-No	California Prop. 65
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	Carcinogen
CRYSTALLINE SILICA (QUARTZ)	14808-60-7	Carcinogen

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
TITANIUM DIOXIDE (TOTAL DUST)	X	X	X		X
N-BUTYL ACETATE	X	X	X		X
METHYL N-AMYL KETONE	X	X	X		X
CRYSTALLINE SILICA (QUARTZ)	X	X	X		X
AMORPHOUS SILICA	X		X		
ALUMINUM OXIDES	X	X	X		X
XYLENE	X	X	X	X	X
CRYSTALLINE SILICA (QUARTZ)	X	X	X		X

Other International Regulations

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class
B2 Flammable liquid
D2B Toxic materials

Component	NPRI
N-BUTYL ACETATE	Part 5 Substance
ALUMINUM OXIDES	Part 1, Group 1 Substance (fibrous form)
XYLENE	Part 1, Group 1 Substance; Part 5 Substance

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date: 22-Dec-2009

Revision Summary No information available

HMIS **Health** 0 **Flammability** 0 **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

Material Safety Data Sheet

Preparation Date: 30-Dec-2009 **Revision Date:** 29-Dec-2009 **Revision Number:** 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code 1074-1075B
Trade Name ENDURA-SHIELD II CONVERTER

Contact Manufacturer Tnemec Company, Inc. 6800 Corporate Drive, Kansas City, MO 64120-1372
Emergency Telephone Number 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.
COMBUSTIBLE LIQUID AND VAPOR.
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.

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.

Interactions with Other Chemicals Use of alcoholic beverages may enhance toxic effects.

Potential Environmental Effects See Section 12 for additional Ecological information

Target Organ Effects Central nervous system, Eyes, Respiratory system, Skin

3. COMPOSITION/INFORMATION ON INGREDIENTS

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Component	CAS-No	Weight %
HEXAMETHYLENE DIISOCYANATE (HDI) POLYMER	28182-81-2	60 - 100
PETROLEUM SOLVENT (NAPTHA)	64742-95-6	5
N-BUTYL ACETATE	123-86-4	5
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	822-06-0	0.2

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

Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Do not eat, drink or smoke when using this product. When used in a mixture, read the labels and safety data sheets of all components. Wash thoroughly after handling.

Storage

Close container after each use. 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)
N-BUTYL ACETATE	TWA: 150 ppm STEL: 200 ppm	TWA: 710 mg/m^3 TWA: 150 ppm STEL: 200 ppm STEL: 950 mg/m^3	TWA: 150 ppm TWA: 713 mg/m^3 STEL: 200 ppm STEL: 950 mg/m^3	TWA: 150 ppm TWA: 710 mg/m^3 STEL: 200 ppm STEL: 950 mg/m^3	TWA: 150 ppm TWA: 710 mg/m^3 STEL: 200 ppm STEL: 950 mg/m^3
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	TWA: 0.005 ppm		TWA: 0.034 mg/m^3 TWA: 0.005 ppm	TWA: 0.005 ppm TWA: 0.2 µmol/m^3 CEV: 0.02 ppm CEV: 0.8 µmol/m^3	

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	57°C / 135.0°F
Method	Pensky Martens - Closed Cup
Boiling Point/Range	118 - 128°C / 244.0 - 262.0°F
Upper Exposure Limits	No information available
Lower Exposure Limits	No information available
Evaporation Rate	No information available
Vapour Pressure	No information available
Vapour Density	No information available
Specific Gravity	1.12354
Density	9.34955
VOC Content (lbs/gal)	.935
% Volatile by Weight	10.0000
% Volatile by Volume	13.9009

10. STABILITY AND REACTIVITY

Chemical stability Stable.

Conditions to Avoid Heat, flames and sparks. Amines.

Incompatible Products Strong oxidizing agents. Caustics. 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
HEXAMETHYLENE DIISOCYANATE (HDI) POLYMER			18500 mg/m^3 (Rat) 1 h
PETROLEUM SOLVENT (NAPTHA)	8400 mg/kg (Rat)	2000 mg/kg (Rabbit)	5.2 mg/L (Rat) 4 h 3400 ppm (Rat) 4 h
N-BUTYL ACETATE	10768 mg/kg (Rat)	17600 mg/kg (Rabbit)	390 ppm (Rat) 4 h
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	710 mg/kg (Rat)	570 mg/kg (Rabbit)	0.29 mg/L (Rat) 1 h 0.15 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

Mutagenic Effects No information available
Reproductive Effects No information available
Developmental Effects No information available
Teratogenicity No information available
Target Organ Effects Central nervous system, Eyes, Respiratory system, Skin.
Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
PETROLEUM SOLVENT (NAPTHA)		LC50= 9.22 mg/L Oncorhynchus mykiss 96 h		EC50 = 6.14 mg/L 48 h
N-BUTYL ACETATE	EC50 = 320 mg/L 96 h EC50 = 674.7 mg/L 72 h	LC50= 18 mg/L Pimephales promelas 96 h LC50= 100 mg/L Lepomis macrochirus 96 h LC50= 62 mg/L Leuciscus idus 96 h	EC50 = 70.0 mg/L 5 min EC50 = 82.2 mg/L 15 min EC50 = 98.9 mg/L 30 min EC50 = 959 mg/L 18 h	EC50 = 44 mg/L 48 h

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER		LC50= 26.1 mg/L Brachydanio rerio 96 h	EC50 = 53.2 mg/L 5 min EC50 = 25.5 mg/L 15 min EC50 = 15.7 mg/L 30 min	

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.

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

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product contains the following HAPs:
Component
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER

U.S. Federal Regulations

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	822-06-0	0.2	1.0

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
N-BUTYL ACETATE	5000 lb			X

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
N-BUTYL ACETATE	5000 lb	
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	100 lb	

U.S. State Regulations

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

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
N-BUTYL ACETATE	X	X	X		X
HEXAMETHYLENE DIISOCYANATE (HDI) MONOMER	X	X		X	

Other International Regulations

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class
B3 Combustible liquid
D2A Very toxic materials

Component	NPRI
PETROLEUM SOLVENT (NAPTHA)	Part 5 Substance
N-BUTYL ACETATE	Part 5 Substance

Legend
NPRI - National Pollutant Release Inventory

16. OTHER INFORMATION

Revision Date: 29-Dec-2009

Revision Summary No information available

HMIS **Health** 2 **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