

MATERIAL SAFETY DATA SHEET

Ashland Inc.

Page 001  
 Date Prepared: 09/20/06  
 Date Printed: 08/31/07  
 MSDS No: 303.0289014-009.001

PLIOBOND 1744

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: PLIOBOND 1744

General or Generic ID: RESIN(S) IN SOLVENTS(S)

Company

Ashland Inc.  
 Covington, KY

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)  
 24 hours everyday  
 Regulatory Information Number:  
 1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
TOLUENE	108-88-3	32.0
METHYL ETHYL KETONE	78-93-3	20.0
PHENOLIC RESIN	Trade Secret	12.0- 16.0
ACETONE	67-64-1	11.0- 15.0
SYNTHETIC RUBBER	Trade Secret	7.0- 11.0
2BUTENEDIOICACID POLYMER (INDISC)	9005-09-8	7.0- 11.0
SUBSTITUTED PHENOLIC RESIN	Trade Secret	5.0- 9.0
EPOXY RESIN	Trade Secret	1.0- 4.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

Skin

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Additional symptoms of skin contact may include: allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects).

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Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful.

Symptoms of Exposure

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), temporary changes in mood and behavior irregular heartbeat, and death.

Target Organ Effects

Based on animal studies, exposure to methyl ethyl ketone (MEK) increases the onset of peripheral neuropathy caused by exposure to methyl butyl ketone (MBK), and/or n-hexane, and/or ethyl butyl ketone. MEK alone has not been shown to cause peripheral neuropathy. Prolonged intentional toluene abuse may lead to damage to many organ systems having effects on: central and peripheral nervous systems, vision, hearing, liver, kidneys, heart and blood. Such abuse has been associated with brain damage characterized by disturbances in gait, personality changes and loss of memory. Comparable central nervous system effects have not been shown to result from occupational exposure to toluene. Prolonged intentional toluene abuse may lead to hearing loss progressing to deafness. In addition, while noise is known to cause hearing loss in humans, it has been suggested that workers exposed to organic solvents, including toluene, along with noise may suffer greater hearing loss than would be expected from exposure to noise alone. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects, cardiac sensitization, respiratory tract damage (nose, throat, and airways), eye damage, kidney damage, effects on hearing, central nervous system damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: cardiac sensitization, kidney damage.

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Developmental Information

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. The relevance of these findings to humans is uncertain. Toluene may be harmful to the human fetus based on positive test results with laboratory animals. Case studies show that prolonged intentional abuse of toluene during pregnancy can cause birth defects in humans.

Cancer Information

Ethylbenzene has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. The International Agency for Research on Cancer (IARC) has classified ethylbenzene as a possible human carcinogen.

Other Health Effects

No data

Primary Route(s) of Entry

Inhalation, Skin absorption, Skin contact, Ingestion.

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4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

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Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Note to Physicians

Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 3 - Swallowing) when deciding whether to induce vomiting. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: respiratory tract skin, lung (for example, asthma-like conditions), kidney, central nervous system, auditory system, eye, Individuals with preexisting heart disorders may be more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material.

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5. FIRE FIGHTING MEASURES

Flash Point

< -1.0 F (-18.3 C) SETA

Explosive Limit

(for component) Lower 1.2 %

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: carbon dioxide and carbon monoxide, nitrogen oxides, various hydrocarbons.

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Fire and Explosion Hazards

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Extinguishing Media

regular foam (such as AFFF), water fog, carbon dioxide, dry chemical.

Fire Fighting Instructions

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

NFPA Rating

Not determined

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6. ACCIDENTAL RELEASE MEASURES

Small Spill

Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks. Absorb liquid on vermiculite, floor absorbent or other absorbent material.

Large Spill

Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.

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7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin Protection

Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

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Exposure Guidelines

Component

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TOLUENE (108-88-3)

OSHA PEL 200.000 ppm - TWA  
OSHA PEL 300.000 ppm - Ceiling  
OSHA VPEL 100.000 ppm - TWA  
OSHA VPEL 150.000 ppm - STEL  
ACGIH TLV 50.000 ppm - TWA (Skin)  
ACGIH TLV 150.000 ppm - STEL (Skin)

METHYL ETHYL KETONE (78-93-3)

OSHA PEL 200.000 ppm - TWA  
OSHA VPEL 200.000 ppm - TWA  
OSHA VPEL 300.000 ppm - STEL  
ACGIH TLV 200.000 ppm - TWA  
ACGIH TLV 300.000 ppm - STEL

PHENOLIC RESIN

No exposure limits established

ACETONE (67-64-1)

OSHA PEL 1000.000 ppm - TWA  
OSHA VPEL 750.000 ppm - TWA  
OSHA VPEL 1000.000 ppm - STEL  
ACGIH TLV 500.000 ppm - TWA  
ACGIH TLV 750.000 ppm - STEL

SYNTHETIC RUBBER

No exposure limits established

2BUTENEDIOICACID POLYMER (9005-09-8)

No exposure limits established

SUBSTITUTED PHENOLIC RESIN

No exposure limits established

EPOXY RESIN

No exposure limits established

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9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for component) 133.0 F (56.1 C)

Vapor Pressure

(for component) 185.000 mmHg

Specific Vapor Density

> 1.000 @ AIR=1

Specific Gravity

.908 @ 77.00 F

Liquid Density

7.560 lbs/gal @ 77.00 F

.908 kg/l @ 25.00 C

Percent Volatiles

72.0 - 74.0 %

Volatile Organic Compounds (VOC)

676.000 g/l

5.650 lbs/gal

Evaporation Rate

SLOWER THAN ETHYL ETHER

Appearance

No data

State

LIQUID

Physical Form

No data

Color

No data

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Odor

No data

pH

Not applicable

Viscosity

1750.0 - 3000.0 cps

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10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: carbon dioxide and carbon monoxide, nitrogen oxides,  
various hydrocarbons.

Chemical Stability

Stable.

Incompatibility

Avoid contact with: strong alkalis, strong mineral acids, strong  
oxidizing agents.

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11. TOXICOLOGICAL INFORMATION

No data

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12. ECOLOGICAL INFORMATION

No data

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13. DISPOSAL CONSIDERATION

Waste Management Information

Destroy by liquid incineration in accordance with applicable regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution Company, IC&S Environmental Services Group at 800-531-7106.

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14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:

ADHESIVES, 3, UN1133, III

Container/Mode:

55 GAL DRUM/TRUCK PACKAGE

NOS Component:

None

RQ (Reportable Quantity) - 49 CFR 172.101

Product Quantity (lbs) Component

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3121 TOLUENE  
10748 XYLENES (O-, M-, P- ISOMERS)  
25492 ETHYL METHYL KETONE  
38108 ACETONE  
48239 CRESOLS (O-; M-; P-)

Other Transportation Information

The Transport Information may vary with the container and mode of shipment.

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15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

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CERCLA RQ - 40 CFR 302.4(a)

Component	RQ (lbs)
TOLUENE	1000
METHYL ETHYL KETONE	5000
ACETONE	5000

CERCLA RQ - 40 CFR 302.4(b)

Materials without a "listed" RQ may be reportable as an "unlisted hazardous substance". See 40 CFR 302.5 (b).

SARA 302 Components - 40 CFR 355 Appendix A

None

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(X) Delayed(X) Fire(X) Reactive( ) Sudden Release of Pressure( )

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number	%
TOLUENE	108-88-3	32.04
METHYL ETHYL KETONE	78-93-3	19.61

OSHA Process Safety Management 29 CFR 1910

None listed

EPA Accidental Release Prevention 40 CFR 68

None listed

International Regulations

Inventory Status

DSL (CANADA) The intentional ingredients of this product are listed.

ECL (SOUTH KOREA) The intentional ingredients of this product are listed.

PICCS (PHILIPPINES) The intentional ingredients of this product are listed.

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State and Local Regulations

California Proposition 65

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause cancer.

FORMALDEHYDE (GAS)

BENZENE

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause reproductive harm.

TOLUENE

BENZENE

New Jersey RTK Label Information

TOLUENE	108-88-3
METHYL ETHYL KETONE	78-93-3
ACETONE	67-64-1

Pennsylvania RTK Label Information

BENZENE, METHYL-	108-88-3
2-BUTANONE	78-93-3
2-PROPANONE	67-64-1

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16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Revision Indicator

This MSDS has been revised in the following section(s):  
Section 3. HAZARDS IDENTIFICATION