



GEOBOND FIELD ADHESIVE 5 GAL

Version 3.
REVISION DATE: 01/29/2010

Print Date 02/02/2010

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : GEOBOND FIELD ADHESIVE 5 GAL
Product code : 259250

COMPANY : Republic Powdered Metals
2628 Pearl Road
Medina, OH 44256

Telephone : (800) 551-7081
Emergency Phone: : 1-800-551-7081
After Hours: Chemtrec 1-800-424-9300

Product use : Adhesive

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview

Clear to Yellow. Viscous solution. May cause slight irritation to the respiratory system. May cause nausea, headaches, and dizziness. May cause drowsiness, weakness, and fatigue. May cause allergic respiratory sensitization. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention. Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel.

Acute Potential Health Effects/ Routes of Entry

Inhalation : May cause slight irritation to the respiratory system. May cause nausea, headaches, and dizziness. May cause drowsiness, weakness, and fatigue. May cause allergic respiratory sensitization.

Eyes : Direct contact may cause mild irritation.

Ingestion : May cause gastrointestinal irritation, nausea, and vomiting.

Skin : May cause sensitization resulting in irritation, itching and redness.

Aggravated Medical Conditions

Pre-existing eye, skin and respiratory disorders may be aggravated by exposure.

Chronic Health Effects

Overexposure may cause dermatitis, asthma, skin and respiratory sensitization and decreased lung function. Prolonged or repeated exposure to butyl benzyl phthalate may cause reduced body weights and adverse effects on the liver, kidney, spleen, pancreas, and reproductive organs. Diphenylmethane diisocyanate (methylene bisphenyl isocyanate) caused an increased incidence of lung tumors in experimental animals following long term inhalation at concentrations in excess of 100 times the exposure limit. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

Target Organs: Skin, Eye, Ingestion, Lung

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SECTION 3 - PRODUCT COMPOSITION

Chemical Name	CAS-No.	Weight %
Polyurethane polymer	NJTSRN# 51721300-5119P	> 60.0
Butyl benzyl phthalate	85-68-7	15.0 - 40.0
4,4'-Methylene bis(phenylisocyanate)	101-68-8	1.0 - 5.0
Diphenylmethane diisocyanate	26447-40-5	1.0 - 5.0

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

- Inhalation : Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention. Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel.
- Eye contact : Flush with water for at least 15 minutes while holding eye lids apart. Get medical attention immediately.
- Skin contact : Clean area of contact thoroughly using soap and water. If irritation, rash or other disorders develop, get medical attention immediately.
- Ingestion : Do not induce vomiting unless advised by a physician. Call nearest Poison Control Center or Physician immediately.

SECTION 5 - FIRE FIGHTING MEASURES

- Flash point : 325 °F, 163 °C
- Method : Not available.
- Lower explosion limit : Not available.
- Upper explosion limit : Not available.
- Autoignition temperature : Not available.
- Extinguishing media : If water fog is ineffective, use carbon dioxide, dry chemical or foam.
- Hazardous combustion products : Carbon monoxide and carbon dioxide can form. Hydrocyanic acid and nitrogen oxides can form.
- Protective equipment for firefighters : Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA).

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Use appropriate protective equipment. Avoid contact with material. Scrape up and transfer to appropriate container for disposal.

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SECTION 7 - HANDLING AND STORAGE

Prevent inhalation of vapor, ingestion and contact with skin, eyes and clothing. Preferably use entire contents in one continuous work session. Do not smoke, weld, generate sparks, or use flame near container. Change soiled work clothes frequently. Clean hands thoroughly after handling. Do not store or use near food. Keep container closed when not in use. Since emptied containers retain product residue and vapor, observe precautions even after container is emptied. Store under dry warehouse conditions away from heat and all ignition sources.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**Personal protection equipment**

- Respiratory protection : Wear appropriate, properly fitted NIOSH/MSHA approved organic vapor or supplied air respirator when airborne contaminant level(s) are expected to exceed exposure limits indicated on the MSDS. Follow manufacturer's directions for respirator use.
- Hand protection : Use suitable impervious nitrile or neoprene gloves and protective apparel to reduce exposure.
- Eye protection : Wear appropriate eye protection. Use safety glasses if eye contact is likely.
- Skin and body protection : Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before reuse.
- Protective measures : Use professional judgment in the selection, care, and use.
- Engineering measures : Use general ventilation and/ or local exhaust to reduce the airborne contaminant concentration below the exposure limit listed in the MSDS

Exposure Limits

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Regulation</u>	<u>Limit</u>	<u>Form</u>
4,4'-Methylene bis(phenylisocyanate)	101-68-8	ACGIH TWA:	0.005 ppm	

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Form : Viscous solution
- Color : Clear to Yellow
- Odor : Ester
- pH : Not available.
- Vapour pressure : Not available.
- Vapor density : Heavier than air
- Melting point/range : Not available.
- Freezing point : Not available.



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Boiling point/range : Not available.
Water solubility : Insoluble
Specific Gravity : 1.05
% Volatile Weight : 5 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid : Amines. Water or moisture and oxidizing agents. Alcohols. Strong acids. Strong bases.
Stability : Material is stable under normal storage, handling, and use.
Hazardous polymerization : Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Butyl benzyl phthalate, CAS-No.: 85-68-7
Acute oral toxicity (LD-50 oral) 13,500 mg/kg (Rat)
4,4'-Methylene bis(phenylisocyanate), CAS-No.: 101-68-8
Acute inhalation toxicity (LC-50) 0.369 mg/l for 4 h (Rat) 0.38 mg/l for 4 h (Rat)

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Method : Waste not regulated under RCRA. Incinerate at EPA approved facility or dispose of waste in compliance with state and local regulations.

SECTION 14 - TRANSPORTATION / SHIPPING DATA

TDG / DOT Shipping Description:
NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

North American Inventories:

All components are listed or exempt from the TSCA inventory.
This product or its components are listed on, or exempt from the Canadian Domestic Substances List.

U.S. Federal Regulations:

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SARA 313 Components : 4,4'-Methylene bis(phenylisocyanate) 101-68-8

SARA 311/312 Hazards : Acute Health Hazard

OSHA Hazardous Components :

Butyl benzyl phthalate 85-68-7
4,4'-Methylene bis(phenylisocyanate) 101-68-8

OSHA Status: Considered : Irritant
hazardous based on the Sensitizer
following criteria:

OSHA Flammability : IIIB

Regulatory VOC (less water and : 55 g/l
exempt solvent)

VOC Method 310 : 5 %

U.S. State Regulations:

MASS RTK Components : Butyl benzyl phthalate 85-68-7
4,4'-Methylene bis(phenylisocyanate) 101-68-8

Penn RTK Components : Polyurethane polymer NJTSRN# 51721300-5119P
Butyl benzyl phthalate 85-68-7
4,4'-Methylene bis(phenylisocyanate) 101-68-8

NJ RTK Components : Polyurethane polymer NJTSRN# 51721300-5119P
Butyl benzyl phthalate 85-68-7
4,4'-Methylene bis(phenylisocyanate) 101-68-8
Diphenylmethane diisocyanate 26447-40-5

Components under California Proposition 65:

WARNING! Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm

SECTION 16 - OTHER INFORMATION

HMIS Rating :

Health	2
Flammability	1
Reactivity	1
PPE	

0 = Minimum
1 = Slight
2 = Moderate
3 = Serious
4 = Severe

Further information:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.



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Legend

ACGIH - American Conference of Governmental Hygienists
NTP - National Toxicology Program
DOT - Department of Transportation
DSL - Domestic Substance List
EPA - Environmental Protection Agency
HMIS - Hazardous Materials Information System
IARC - International Agency for Research on Cancer
MSHA - Mine Safety Health Administration
NDSL - Non-Domestic Substance List
NIOSH - National Institute for Occupational Safety and Health
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit
RCRA - Resource Conservation and Recovery Act
RTK - Right To Know
SARA - Superfund Amendments and Reauthorization Act
STEL - Short Term Exposure Limit
TLV - Threshold Limit Value
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average
V - Volume
VOC - Volatile Organic Compound
WHMIS - Workplace Hazardous Materials Information System