

Safety Data Sheet

DEGABOND 948 ADHESIVE

Revision date : 2012/04/24

Version: 1.5

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(30368180/SDS_GEN_US/EN)

1. Product and Company Identification

Company

BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Chemical family: aromatic isocyanates

2. Hazards Identification

Emergency overview

WARNING:

CONTAINS DIPHENYLMETHANE DIISOCYANATE (CAS No. 101-68-8). INHALATION OF MDI MISTS OR VAPORS MAY CAUSE RESPIRATORY IRRITATION, BREATHLESSNESS, CHEST DISCOMFORT AND REDUCED PULMONARY FUNCTION. OVEREXPOSURE WELL ABOVE THE PEL MAY RESULT IN BRONCHITIS, BRONCHIAL SPASMS AND PULMONARY EDEMA. LONG-TERM EXPOSURE TO ISOCYANATES HAS BEEN REPORTED TO CAUSE LUNG DAMAGE, INCLUDING REDUCED LUNG FUNCTION WHICH MAY BE PERMANENT. ACUTE OR CHRONIC OVEREXPOSURE TO ISOCYANATES MAY CAUSE SENSITIZATION IN SOME INDIVIDUALS, RESULTING IN ALLERGIC RESPIRATORY REACTIONS INCLUDING WHEEZING, SHORTNESS OF BREATH AND DIFFICULTY BREATHING.

MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

State of matter: solid

Colour: tan

Odour: oily, mild

Potential health effects**Primary routes of exposure:**

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

May cause sensitization by inhalation.

Irritation / corrosion:

Irritating to eyes, respiratory system and skin.

Sensitization:

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Sensitization after skin contact possible. The substance may cause sensitization of the respiratory tract. Studies in animals suggest that dermal exposure may lead to pulmonary sensitization. However, the relevance of this result for humans is unclear.

Signs and symptoms of overexposure:

In sensitized individuals, sensitization reactions may be elicited by structurally similar substances. Respiratory sensitization may result in allergic (asthma-like) signs in the lower respiratory tract including wheezing, shortness of breath and difficulty breathing, the onset of which may be delayed. Repeated inhalation of high concentrations may cause lung damage, including reduced lung function, which may be permanent. Substances eliciting lower respiratory tract irritation may worsen the asthma-like reactions that may be produced by product exposures.

Potential environmental effects

Aquatic toxicity:

The product has not been tested.

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
14807-96-6	15.0 - 40.0 %	talc
101-68-8	7.0 - 13.0 %	Diphenylmethane-4,4'-diisocyanate (MDI)
64742-46-7	5.0 - 10.0 %	Distillates (petroleum), hydrotreated middle
26447-40-5	3.0 - 7.0 %	Methylenediphenyl diisocyanate
9016-87-9	1.0 - 5.0 %	P-MDI

4. First-Aid Measures

General advice:

Remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

If on skin:

Wash affected areas thoroughly with soap and water. Consult a doctor if skin irritation persists.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Immediate medical attention required.

Note to physician

Antidote:	Specific antidotes or neutralizers to isocyanates do not exist.
Treatment:	Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

5. Fire-Fighting Measures

Flash point:	> 200 °F > 93.34 °C	
Autoignition:		No data available.
Lower explosion limit:	1.6 %(V)	
Upper explosion limit:	10.2 %(V)	
Self-ignition temperature:		not self-igniting

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Suitable extinguishing media:
water spray, foam, carbon dioxide

Hazards during fire-fighting:
nitrous gases, fumes/smoke, isocyanate, harmful vapours

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

6. Accidental release measures

Personal precautions:
Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:
Do not discharge into drains/surface waters/groundwater.

7. Handling and Storage

Handling

General advice:
Avoid contact with the skin, eyes and clothing. Avoid excessive temperatures. Avoid humidity. Avoid aerosol formation.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. If exposed to fire, keep containers cool by spraying with water.

Storage

General advice:
Keep container tightly closed and in a well-ventilated place.

Storage stability:
Storage temperature: 65 - 104 °F
Protect against moisture.

8. Exposure Controls and Personal Protection

Components with workplace control parameters

Diphenylmethane-4,4'-diisocyanate (MDI)	OSHA	CLV	0.02 ppm	0.2 mg/m ³ ;
	ACGIH	TWA value	0.005 ppm ;	
talc	OSHA	TWA value	20 millions of particles per cubic foot of air ;	
		TWA value	2.4 millions of particles per cubic foot of air Respirable ;	
			The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.	
		TWA value	0.1 mg/m ³ Respirable ;	
			The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.	
		TWA value	0.3 mg/m ³ Total dust ;	
			The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.	

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ACGIH TWA value 2 mg/m3 Respirable fraction ;
The value is for particulate matter containing no asbestos
and <1% crystalline silica.

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

When atmospheric levels may exceed the occupational exposure limit (PEL or TLV) NIOSH-certified air-purifying respirators equipped with an organic vapor sorbent and particulate filter can be used as long as appropriate precautions and change out schedules are in place.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Wear protective clothing as necessary to prevent contact. Eye wash fountains and safety showers must be easily accessible. Observe the appropriate PEL value. Wash soiled clothing immediately. Contaminated equipment or clothing should be cleaned after each use or disposed of.

9. Physical and Chemical Properties

Form:	paste	
Odour:	oily, mild	
Colour:	tan	
pH value:		neutral to slightly alkaline
Melting point:		not applicable
Vapour pressure:		No data available.
Density:	1.26 g/cm ³	
Bulk density:	1.26 g/cm ³	
Vapour density:		Heavier than air.
Partitioning coefficient n-octanol/water (log Pow):		No data available.
Solubility in water:		slightly soluble

10. Stability and Reactivity

Conditions to avoid:

Avoid moisture. Avoid prolonged exposure to extreme heat. Avoid sources of ignition.

Substances to avoid:

water, alcohols, strong bases, oxidizing agents, Substances/products that react with isocyanates.

Hazardous reactions:

The product is chemically stable.

Decomposition products:

Hazardous decomposition products: aromatic isocyanates, gases/vapours, carbon oxides, nitrogen oxides

Oxidizing properties:

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Based on its structural properties the product is not classified as oxidizing.

11. Toxicological information

Acute toxicity

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Assessment of acute toxicity:

Of moderate toxicity after short-term inhalation. Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

Inhalation of vapours may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. Inhalation exposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed. Gastrointestinal symptoms include nausea, vomiting and abdominal pain.

Oral:

No data available.

Inhalation:

No data available.

Dermal:

No data available.

Irritation / corrosion

Information on: Distillates (petroleum), hydrotreated middle

Assessment of irritating effects:

May cause slight irritation to the skin. Not irritating to the eyes.

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Assessment of irritating effects:

Irritating to eyes, respiratory system and skin.

Information on: Methylenediphenyl diisocyanate

Assessment of irritating effects:

Irritating to eyes and skin.

Information on: P-MDI

Assessment of irritating effects:

Irritating to eyes, respiratory system and skin.

Sensitization

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

Assessment of sensitization:

The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible. Studies in animals suggest that dermal exposure may lead to pulmonary sensitization. However, the relevance of this result for humans is unclear.

As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the PEL/TLV. These symptoms, which include chest tightness, wheezing, cough, shortness of breath, or asthmatic attack, could be immediate or delayed up to several hours after exposure. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Chronic overexposure to isocyanates has also been reported to

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cause lung damage, including a decrease in lung function, which may be permanent. Prolonged contact can cause reddening, swelling, rash, scaling, or blistering. In those who have developed a skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material, or even as a result of vapour-only exposure.

Information on: Methylenediphenyl diisocyanate

Assessment of sensitization:

The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

Information on: P-MDI

Assessment of sensitization:

The substance may cause sensitization of the respiratory tract. Sensitization after skin contact possible.

Carcinogenicity

Information on: Diphenylmethane-4,4'-diisocyanate (MDI)

A carcinogenic potential cannot be excluded after prolonged exposure to severely irritating concentrations.

These effects are not relevant to humans at occupational levels of exposure.

Information on: P-MDI

Based on the ingredients there is a suspicion of a carcinogenic effect in humans.

12. Ecological Information

Other adverse effects:

Do not release untreated into natural waters. Do not allow to enter soil, waterways or waste water channels. The product has not been tested. The statement has been derived from the properties of the individual components.

13. Disposal considerations

Waste disposal of substance:

Incinerate or dispose of in a licensed facility. Observe all local regulations.

Container disposal:

Do not reuse empty containers.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

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15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

OSHA hazard category:

IARC 1, 2A or 2B carcinogen; Chronic target organ effects reported; OSHA PEL established; ACGIH TLV established

EPCRA 311/312 (Hazard categories):

Acute; Chronic

EPCRA 313:

CAS Number

101-68-8

9016-87-9

Chemical name

Diphenylmethane-4,4'-diisocyanate (MDI)

P-MDI

State regulations

State RTK

MA, NJ, PA

MA, NJ, PA

MA, NJ, PA

MA, NJ, PA

CAS Number

14807-96-6

101-68-8

64742-46-7

9016-87-9

Chemical name

talco

Diphenylmethane-4,4'-diisocyanate (MDI)

Distillates (petroleum), hydrotreated middle

P-MDI

16. Other Information

HMIS III rating

Health: 2⁺ Flammability: 1 Physical hazard: 1

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

MSDS Prepared by:

BASF NA Product Regulations

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MSDS Prepared on: 2012/04/24

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