

# Safety Data Sheet

## Wabo HPH PT A

Revision date : 2010/11/02

Version: 1.0

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(479705/SDS\_GEN\_US/EN)

### 1. Product and Company Identification

Company

Watson Bowman Acme Corporation  
95 Pineview Drive  
Amherst, NY 14228 USA

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300  
BASF HOTLINE: 1-800-832-HELP

Chemical family: aromatic isocyanates

### 2. Hazards Identification

Emergency overview**CAUTION:**

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 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.

CONTAINS MATERIAL WHICH MAY CAUSE CANCER.

State of matter: liquid

Colour: light yellow

Odour: faintly aromatic

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.

**Assessment other acute effects:**

Causes temporary irritation of the respiratory tract.

**Chronic toxicity:**

**Carcinogenicity:** The chemical structure does not suggest a specific alert for such an effect.

**Repeated dose toxicity:** Repeated exposure to the substance by dermal administration leads to effects similar to those found after single exposure. Repeated exposure to the substance by inhalative administration leads to

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effects similar to those found after single exposure. Repeated exposure to the substance by oral administration leads to effects similar to those found after single exposure.

**Reproductive toxicity:** The chemical structure does not suggest such an effect.

**Teratogenicity:** The chemical structure does not suggest such an effect.

**Genotoxicity:** The chemical structure does not suggest such an effect.

**Signs and symptoms of overexposure:**

*Information on: gamma-Butyrolactone*

*Overexposure may cause:; weakness, chest discomfort, agitation, nausea, diarrhea, headache, bradycardia, hypothermia, consciousness is affected, coma*

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*Information on: MDI*

*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.*

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### 3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
101-68-8	48.0 %	Diphenylmethane-4,4'-diisocyanate (MDI)
	< 35.0 %	Isocyanate Prepolymer
	< 20.0 %	Modified MDI
	< 3.0 %	Additive
26447-40-5	< 2.0 %	MDI Mixed Isomers

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### 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. If irritation develops, seek medical attention.

**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. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. 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.

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### 5. Fire-Fighting Measures

Flash point: > 200.00 °C (open cup)  
Autoignition: Unspecified  
Self-ignition temperature: not self-igniting

**Suitable extinguishing media:**  
water spray, dry powder, carbon dioxide, foam

**Hazards during fire-fighting:**  
nitrous gases, fumes/smoke, isocyanate, vapour

**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.

**Cleanup:**  
Dike spillage.  
For small amounts: Absorb isocyanate with suitable absorbent material (see § 40 CFR, sections 260, 264 and 265 for further information). Shovel into open container. Do not make container pressure tight. Move container to a well-ventilated area (outside). Spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90 % water, 8 % concentrated ammonia, 2 % detergent. Add at a 10 to 1 ratio. Allow to stand for at least 48 hours to allow escape of evolved carbon dioxide.  
For large amounts: If temporary control of isocyanate vapor is required, a blanket of protein foam or other suitable foam (available from most fire departments) may be placed over the spill. Transfer as much liquid as possible via pump or vacuum device into closed but not sealed containers for disposal.  
For residues: The following measures should be taken for final cleanup: Wash down spill area with decontamination solution. Allow solution to stand for at least 10 minutes.

### 7. Handling and Storage

#### Handling

**General advice:**  
Mix thoroughly before use. If bulging of drum occurs, transfer to well ventilated area, puncture to relieve pressure, open vent and let stand for 48 hours before resealing.

**Protection against fire and explosion:**  
No explosion proofing necessary.

#### Storage

**General advice:**  
Formation of CO<sub>2</sub> and build up of pressure possible. Keep container tightly closed and in a well-ventilated place. Outage of containers should be filled with dry inert gas at atmospheric pressure to avoid reaction with moisture.

**Storage stability:**  
Storage temperature: 16 - 27 °C

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### 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 <sup>3</sup> ;
Modified MDI	ACGIH	TWA value 0.005 ppm ;
	OSHA	CLV 0.02 ppm 0.2 mg/m <sup>3</sup> ;
	ACGIH	TWA value 0.005 ppm ;

#### **Advice on system design:**

Provide local exhaust ventilation to maintain recommended P.E.L.

#### Personal protective equipment

##### **Respiratory protection:**

For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions. 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, Suitable materials, chloroprene rubber (Neoprene), nitrile rubber (Buna N), chlorinated polyethylene, polyvinylchloride (Pylox), butyl rubber, fluoroelastomer (Viton)

##### **Eye protection:**

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

##### **Body protection:**

Suitable materials, saran-coated material

##### **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:	liquid	
Odour:	faintly aromatic	
Colour:	light yellow	
pH value:		not applicable
Freezing point:		Unspecified
Boiling point:	200.00 °C	( 5.000000 mmHg)
Vapour pressure:	0.00001 mmHg	( 25.00 °C)
Density:	1.1263 g/cm <sup>3</sup>	( 25 °C)
Partitioning coefficient n-octanol/water (log Pow):		Unspecified
Viscosity, dynamic:	630.000 mPa.s	( 25.00 °C)
Solubility in water:		Reacts with water.

### 10. Stability and Reactivity

#### **Hazardous reactions:**

The product is chemically stable.

Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with alcohols. Reacts with acids. Reacts with alkalis. Reacts with amines. Risk of exothermic reaction. Risk of violent reaction. Risk of polymerization. Contact with certain rubbers and plastics can cause brittleness of the substance/product with subsequent loss in strength.

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### Decomposition products:

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

### Oxidizing properties:

not fire-propagating

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## 11. Toxicological information

### Acute toxicity

*Information on: 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.*

*Information on: Gamma-butyrolactone*

*Assessment of acute toxicity:*

*Of moderate toxicity after single ingestion. Virtually nontoxic by inhalation. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard.*

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### Irritation / corrosion

*Information on: MDI*

*Assessment of irritating effects:*

*Irritating to eyes, respiratory system and skin.*

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### Sensitization

*Information on: 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.*

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### Repeated dose toxicity

*Information on: MDI*

*Assessment of repeated dose toxicity:*

*No other known chronic effects.*

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### Carcinogenicity

*Information on: Gamma-butyrolactone*

*Results from a number of long-term carcinogenicity studies are available. Taking into account all of the information, there is no indication that the substance is carcinogenic.*

*Information on: MDI*

*Indication of possible carcinogenic effect in animal tests. However, the relevance of this result for humans is unclear.*

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### Development:

*Information on: MDI*

*The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals.*

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### Aspiration Hazard:

No aspiration hazard expected.

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## 12. Ecological Information

### Aquatic toxicity

*Information on: MDI*

*Assessment of aquatic toxicity:*

*There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product may hydrolyse. The test result maybe partially due to degradation products.*

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*Poorly biodegradable.*

*The product is unstable in water. The elimination data also refer to products of hydrolysis.*

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## 13. Disposal considerations

### Waste disposal of substance:

Incinerate or dispose of in a licensed facility. Do not discharge substance/product into sewer system.

### Container disposal:

Steel drums must be emptied and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer or an approved landfill. Do not attempt to refill or clean containers since residue is difficult to remove. Under no circumstances should empty drums be burned or cut open with gas or electric torch as toxic decomposition products may be liberated. Do not reuse empty containers.

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## 14. Transport Information

Reference Bill of Lading

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## 15. Regulatory Information

### Federal Regulations

#### Registration status:

Chemical TSCA, US released / listed

#### OSHA hazard category:

Chronic target organ effects reported; ACGIH TLV established

#### EPCRA 311/312 (Hazard categories):

Acute; Chronic

### State regulations

State RTK  
MA, NJ, PA

CAS Number  
101-68-8

Chemical name  
Diphenylmethane-4,4'-diisocyanate (MDI)

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### 16. Other Information

#### HMIS III rating

Health: 2 $\frac{+}{-}$  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.

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#### MSDS Prepared by:

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MSDS Prepared on: 2010/11/02

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