

# Safety Data Sheet

## MASTERWELD 941 also CX941 ADH

Revision date : 2013/01/11

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Version: 1.0

(30367681/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)

### 2. Hazards Identification

Emergency overview**WARNING:**

CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

MAY BE HARMFUL IF INHALED.

REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE.

This product contains isocyanates.

Prolonged or repeated skin contact may cause sensitization or allergic reactions.

CONTAINS MATERIAL WHICH MAY CAUSE CANCER.

Avoid contact with the skin, eyes and clothing.

Wash thoroughly after handling.

Keep container tightly closed.

State of matter: liquid

Colour: clear

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:**

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

**Irritation / corrosion:**

Irritating to eyes, respiratory system and skin.

**Sensitization:**

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.

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**Chronic toxicity:**

**Carcinogenicity:** A carcinogenic effect cannot safely be ruled out.

**Repeated dose toxicity:** The substance may cause damage to the olfactory epithelium after repeated inhalation. These effects are not relevant to humans at occupational levels of exposure.

**Reproductive toxicity:** No effects have been reported in reproductive organs in long term animal studies.

**Teratogenicity:** 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.

**Genotoxicity:** Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

**Signs and symptoms of overexposure:**  
skin irritation, Eye irritation, allergic symptoms

**Potential environmental effects**

**Aquatic toxicity:**  
The product may hydrolyse. The test result maybe partially due to degradation products. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

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### 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	3.0 - 7.0 %	Distillates (petroleum), hydrotreated middle
26447-40-5	3.0 - 7.0 %	Methylenediphenyl diisocyanate
9016-87-9	1.0 - 5.0 %	P-MDI

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### 4. First-Aid Measures

**General advice:**

First aid personnel should pay attention to their own safety. Remove contaminated clothing.

**If inhaled:**

Remove victim to fresh air and away from exposure immediately. If not breathing, give artificial respiration. Seek medical attention.

**If on skin:**

After contact with skin, wash immediately with plenty of water and soap. Under no circumstances should organic solvent be used. If irritation develops, seek medical attention.

**If in eyes:**

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

**If swallowed:**

Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Do not induce vomiting unless told to by a poison control center or doctor. If person is conscious and can swallow, give two glasses of water.

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### Note to physician

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote.

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## 5. Fire-Fighting Measures

Flash point: > 200 °F  
> 93.34 °C  
Lower explosion limit: 1.6 %(V)  
Upper explosion limit: 10.2 %(V)  
Flammability: not highly flammable

### **Suitable extinguishing media:**

foam, water spray, dry powder, carbon dioxide

### **Unsuitable extinguishing media for safety reasons:**

water jet

### **Hazards during fire-fighting:**

carbon dioxide, carbon monoxide, harmful vapours, nitrogen oxides, fumes/smoke, carbon black

### **Protective equipment for fire-fighting:**

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

### **Further information:**

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

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## 6. Accidental release measures

### **Personal precautions:**

Use personal protective clothing. Do not breathe vapour/aerosol/spray mists. Handle in accordance with good building materials hygiene and safety practice.

### **Environmental precautions:**

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

### **Cleanup:**

For small amounts: Pick up with inert absorbent material (e.g. sand, earth etc.). Dispose of contaminated material as prescribed.

For large amounts: Pump off product.

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## 7. Handling and Storage

### Handling

#### **General advice:**

Avoid contact with the skin, eyes and clothing. Ensure thorough ventilation of stores and work areas.

### Storage

#### **Storage stability:**

Storage temperature: 65 - 105 °F

Protect against moisture.

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### 8. Exposure Controls and Personal Protection

#### Components with occupational exposure limits

Distillates (petroleum), hydrotreated middle	OSHA ACGIH	PEL 5 mg/m3 Mist ; ; Included in the regulation, but with no data values - See the regulation for further details ; Exposure by all routes should be carefully controlled to levels as low as possible.
talc	OSHA	TWA value 5 mg/m3 Inhalable fraction ; 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/m3 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/m3 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.
	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 maintain recommended P.E.L.

#### **Personal protective equipment**

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

Wear a NIOSH-certified (or equivalent) respirator as necessary.

##### **Hand protection:**

Wear chemical resistant protective gloves., Manufacturer's directions for use should be observed because of great diversity of types.

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

Safety glasses with side-shields.

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

Impermeable protective clothing

##### **General safety and hygiene measures:**

Do not inhale gases/vapours/aerosols. In order to prevent contamination while handling, closed working clothes and working gloves should be used. Handle in accordance with good building materials hygiene and safety practice. When using, do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks).

### 9. Physical and Chemical Properties

Form:	liquid	
Odour:	oily, mild	
Colour:	clear	
pH value:		not applicable

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boiling temperature:	approx. 172.22 - 267.78 °C	
Density:	approx. 1.25 g/cm <sup>3</sup>	( 20 °C)
Relative density:	approx. 1.25	
Vapour density:		Heavier than air.
Solubility in water:		( 20 °C) slightly soluble
Miscibility with water:		( 20 °C) slightly soluble
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

### 10. Stability and Reactivity

**Substances to avoid:**

strong acids, strong bases, strong oxidizing agents

**Hazardous reactions:**

The product is stable if stored and handled as prescribed/indicated.

**Decomposition products:**

No hazardous decomposition products if stored and handled as prescribed/indicated.

**Thermal decomposition:**

No decomposition if stored and handled as prescribed/indicated.

**Corrosion to metals:**

Corrosive effects to metal are not anticipated.

### 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.*

*Information on: Distillates (petroleum), hydrotreated middle*

*Assessment of acute toxicity:*

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

*Information on: Methylenediphenyl diisocyanate*

*Assessment of acute toxicity:*

*Virtually nontoxic after a single skin contact. Virtually nontoxic after a single ingestion. Of moderate toxicity after short-term inhalation. Result of analysis for GOAL end points expected (see date)*

*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.*

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### Inhalation:

No data available.

### Irritation / corrosion

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

*Assessment of irritating effects:*

*Irritating to eyes, respiratory system and skin.*

*Information on: Distillates (petroleum), hydrotreated middle*

*Assessment of irritating effects:*

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

*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 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.*

Can sensitize the skin and/or respiratory tract of allergic persons.

### Repeated dose toxicity

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

*Assessment of repeated dose toxicity:*

*The substance may cause damage to the olfactory epithelium after repeated inhalation. These effects are not relevant to humans at occupational levels of exposure.*

*Information on: Methylenediphenyl diisocyanate*

*Assessment of repeated dose toxicity:*

*The substance may cause damage to the olfactory epithelium after repeated inhalation. These effects are not relevant to humans at occupational levels of exposure.*

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### Genetic toxicity

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

*The substance was mutagenic in various bacterial test systems; however, these results could not be confirmed in tests with mammals.*

*Information on: P-MDI*

*The substance was mutagenic in various test systems with microorganisms and cell cultures; however, these results could not be confirmed in tests with mammals.*

### 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. IARC Group 3 (not classifiable as to human carcinogenicity).*

### Experiences in humans:

*Information on: P-MDI*

*Can severely irritate the eyes and respiratory tract depending upon the concentration.*

### Other Information:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses. The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

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## 12. Ecological Information

### Aquatic toxicity

*Information on: TDI*

*Assessment of aquatic toxicity:*

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

### 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.

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## 13. Disposal considerations

### Waste disposal of substance:

Dispose of in accordance with national, state and local regulations.

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## 14. Transport Information

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### 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

## 15. Regulatory Information

### Federal Regulations

#### Registration status:

Chemical TSCA, US released / listed

#### OSHA hazard category:

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

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

Acute; Chronic

### CERCLA RQ

5000 LBS

1000 LBS

100 LBS

### CAS Number

7664-38-2; 78-93-3;

101-68-8

7705-08-0

108-90-7

### Chemical name

phosphoric acid; Methyl ethyl ketone; Diphenylmethane-4,4'-diisocyanate (MDI)

Iron trichloride

chlorobenzene

### State regulations

#### State RTK

MA, NJ, PA

MA, NJ, PA

MA, NJ, PA

NJ

#### CAS Number

14807-96-6

101-68-8

64742-46-7

9016-87-9

#### Chemical name

talc

Diphenylmethane-4,4'-diisocyanate (MDI)

Distillates (petroleum), hydrotreated middle

P-MDI

## 16. Other Information

### HMIS III rating

Health: 2<sup>+</sup>

Flammability: 0

Physical hazard: 0

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



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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:**

BASF NA Product Regulations

MSDS Prepared on: 2013/01/11

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