

Safety Data Sheet

UCRETE HF PTB

Revision date : 2012/10/17
Version: 2.0

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(30397337/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:
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.

State of matter: liquid
Colour: amber
Odour: faint odour

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:

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

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.

3. Composition / Information on Ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
101-68-8	>= 40.0 - <= 70.0 %	Diphenylmethane-4,4'-diisocyanate (MDI)
9016-87-9	>= 15.0 - <= 40.0 %	P-MDI
26447-40-5	>= 3.0 - <= 7.0 %	Methylenediphenyl diisocyanate

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.

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known

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specific antidote.

5. Fire-Fighting Measures

Flash point: 203 °C
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.

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.

7. Handling and Storage

Handling

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

Storage

General advice:
Keep only in the original container in a cool, well-ventilated place. Protect from direct sunlight.

8. Exposure Controls and Personal Protection

Components with occupational exposure limits

P-MDI	OSHA	CLV 0.02 ppm 0.2 mg/m ³ ;
	ACGIH	TWA value 0.005 ppm ;
Diphenylmethane-4,4'-diisocyanate (MDI)	OSHA	CLV 0.02 ppm 0.2 mg/m ³ ;
	ACGIH	TWA value 0.005 ppm ;

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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:	faint odour	
Colour:	amber	
pH value:		not applicable
boiling temperature:	> 300 °C	The substance / product decomposes therefore not determined.
Density:	approx. 1.22 g/cm ³	(25 °C)
Solubility in water:		(20 °C) Reacts with water.

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

Irritation / corrosion

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

Assessment of irritating effects:

Irritating to eyes, respiratory system and skin.

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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.

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.

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.

12. Ecological Information

Aquatic toxicity

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

Assessment of 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.

Poorly biodegradable.

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

Poorly biodegradable.

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:

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

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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

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

EPCRA 313:

<u>CAS Number</u>	<u>Chemical name</u>
9016-87-9	P-MDI
101-68-8	Diphenylmethane-4,4'-diisocyanate (MDI)

CERCLA RQ

	<u>CAS Number</u>	<u>Chemical name</u>
5000 LBS	78-93-3; 101-68-8;	Methylethylketone; Diphenylmethane-4,4'-diisocyanate (MDI);
	9016-87-9	P-MDI
1000 LBS	7705-08-0	Iron trichloride
100 LBS	108-90-7	chlorobenzene

State regulations

State RTK

MA, NJ, PA
MA, NJ, PA

CAS Number

101-68-8
9016-87-9

Chemical name

Diphenylmethane-4,4'-diisocyanate (MDI)
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

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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: 2012/10/17

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