## Section 1 - PRODUCT AND COMPANY IDENTIFICATION

**Material Name**

GAF LRF Adhesive XF Part A

**Synonyms**
Diphenylmethane Diisocynate

**Chemical Family**
Aromatic isocyanates

**Product Use**
Polyurethane Component

**Manufacturer Information:**

GAF
1 Campus Drive
Parsippany, NJ 07054, USA

Phone: 800-766-3411
Emergency Phone #:
CHEMTREC: 800-424-9300

## Section 2 - HAZARDS IDENTIFICATION

**Classification of the product**

| | | |
|---|---|---|
| Acute Tox. | 4 (Inhalation - mist) | Acute toxicity |
| Eye Dam./Irrit. | 2B | Serious eye damage/eye irritation |
| Skin Corr./Irrit. | 2 | Skin corrosion/irritation |
| Skin Sens | 1B | Skin sensitization |
| Resp. Sens. | 1 | Respiratory sensitization |
| STOT SE | 3 (irritating to resp. system) | Specific target organ toxicity-single exposure |
| STOT RE | 2 (by inhalation) | Specific target organ toxicity-repeated exposure |
| Press. Gas | Compr. Gas | Gases under pressure |
| Simple Asphyxiant | Simple Asphyxiant (1) | Simple Asphyxiant |

**GHS Label Elements Symbol(s)**

**Signal Word**

Danger

**Hazard Statement(s)**

Contains gas under pressure; may explode if heated. May displace oxygen and cause rapid suffocation.
Causes eye irritation.
Causes skin irritation.
Harmful if inhaled.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
May cause respiratory irritation.
May cause damage to organs (Olfactory organs) through prolonged or repeated exposure (inhalation).

**Precautionary Statement(s)**

**Prevention**

Wear protective gloves.
Use only outdoors or in a well-ventilated area.
Do not breathe dust/gas/mist/vapors.
Avoid breathing mist.
In case of inadequate ventilation wear respiratory protection.
Contaminated work clothing should not be allowed out of the workplace.
Wash with plenty of water and soap thoroughly after handling.



**Response**

Call a POISON CENTER or doctor/physician if you feel unwell.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Get medical advice/attention if you feel unwell.
IF ON SKIN (or hair): Wash with plenty of soap and water.
If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
If eye irritation persists: Call a POISON CENTER or doctor/physician.

Labeling of special preparations (GHS):

CONTAINS ISOCYANATES. INHALATION OF ISOCYANATE 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. ANIMAL TESTS INDICATE THAT SKIN CONTACT MAY PLAY A ROLE IN CAUSING RESPIRATORY SENSITIZATION.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

**According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR 1910.1200**

| CAS Number | Weight % | Chemical name |
|---|---|---|
| 101-68-8 | >= 25.0 - < 50.0% | Diphenylmethane-4,4'-diisocyanate (MDI) |
| 26447-40-5 | >= 3.0 - < 7.0% | Methylenediphenyl diisocyanate |
| 9016-87-9 | >= 25.0 - < 75.0% | P-MDI |
| 57636-09-6 | >= 1.0 - < 3.0% | Isocyanic acid, polymethylenepolyphenylene ester, polymer with .alpha.-hydro-.omega.-hyroxypoly (oxy-1,2-ethanediyl) |
| 17589-24-1 | >= 0.3 - < 1.0% | 1,3-Diazetidine-2,4-dione, 1,3-bis[4-[(4-isocyanatophenyl)methyl]phenyl]- |
| 811-97-2 | >= 3.0 - < 5.0% | HFC-134A |

This product contains:

| CAS Number | Weight % | Chemical name |
|---|---|---|
| 7727-37-9 | >= 0.0 - < 1.0% | Nitrogen, used for cylinder pressurization only. |

## Section 4 - FIRST AID MEASURES

Issue date: 03-02-2020 Revision 1

**Description of first aid measures**

**General advice:**
Remove contaminated clothing.

**If Inhaled:**
Remove the affected individual to 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, see 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.

## Section 4 - FIRST AID MEASURES

**If swallowed:**
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting.

**Most important symptoms and effects, both acute and delayed**

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Eye irritation, skin irritation, allergic symptoms
Hazards: Symptoms can appear later.
Information on: Diphenylmethane-4,4'-diisocyanate (MDI)
Hazards: 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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**Indication of any immediate medical attention and special treatment needed**

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.

## Section 5 - FIRE FIGHTING MEASURES

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

**Special hazards arising from substance or mixture:**
Hazards during fire-fighting:
nitrous gases, fumes/smoke, isocyanate, vapour

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

**Further information:**
Keep containers cool by spraying with water if exposed to fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

## Section 6 - ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures**
Use personal protective clothing.

**Environmental Precautions** Do not discharge into drains/surface waters/groundwater.

**Methods and material for containment and cleaning up**
For small amounts: Absorb isocyanate with suitable absorbent material. 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.
Dike spillage.

## Section 7 - HANDLING AND STORAGE

**Precautions for Safe Handling**
Provide suitable at the processing machines. Ensure thorough ventilation of stores and work areas. Avoid aerosol formation. When handling heated product, vapours of the product should be ventilated, and respiratory protection used. Wear respiratory protection when spraying. Danger of bursting when sealed gastight. Protect against moisture. If bulging or 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.

**Conditions for Safe Storage, Including any Incompatibilities**
Keep away from water. Segregate from foods and animal feeds. Segregate from acids and bases.

Suitable materials for containers: Carbon steel (Iron), High density polyethylene (HDPE), Low density polyethylene (LDPE), Stainless steel 1.4301 (V2)

Further information on storage conditions: Formation of CO2 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

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

**Components with exposure limits**

| | | |
|---|---|---|
| Diphenylmethane-4,4' -diisocyanate (MDI) | OSHA PEL | CLV 0.02 ppm 0.2 mg/m3 ; CLV 0.02 ppm 0.2 mg/m3 ; |
| | ACGIH TLV | TWA value 0.005 ppm ; |

| | | |
|---|---|---|
| P-MDI | OSHA PEL | CLV 0.02 ppm 0.2 mg/m3 ; CLV 0.02 ppm 0.2 mg/m3 ; |
| | ACGIH TLV | TWA value 0.005 ppm ; |

**Advice on system design:**

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

**Personal protective equipment**

**Respiratory protection:**

When workers are facing concentrations above the occupational exposure limits they must use appropriate certified respirators. 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. For emergency or non-routine, high exposure situations, including confined space entry, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

**Hand protection:**

Chemical resistant protective gloves should be worn to prevent all skin contact., Suitable materials may include, chloroprene rubber (Neoprene), nitrile rubber (Buna N), chlorinated polyethylene, polyvinylchloride (Pylox), butyl rubber, depending upon conditions of use.

**Eye protection:**

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

**Body protection:**

Cover as much of the exposed skin as possible to prevent all skin contact., Suitable materials may include, saran-coated material, depending upon conditions of use.

**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 or TLV value. Wash soiled clothing immediately. Contaminated equipment or clothing should be cleaned after each use or disposed of.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| Form: | Liquid |
| Odour: | Faintly aromatic |
| Odour threshold: | Not applicable |
| Colour: | amber |
| pH value: | Not applicable |
| Freezing point: | < -19.00 °C |
| Boiling point: | 200.00 °C (5.000000 mmHg) |
| Sublimation point: | No applicable information available. |
| Flash point: | > 200.00 °C |
| Flammability: | Not flammable |
| Lower explosion limit: | For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point. |
| Upper explosion limit: | For liquids not relevant for classification and labeling. |
| Autoignition: | > 470 °C |
| Vapor pressure: | < 0.00001 mmHg (25 °C) |
| Density: | 1.2220 g/cm3 (20.00 °C) |
| Relative density: | No applicable information available. |
| Vapor density: | Not applicable |
| Partitioning coefficient n-octanol/water (log Pow): | Unspecified |
| Self-ignition temperature: | Based on its structural properties the product is not classified as self-igniting. |
| Thermal decomposition: | No decomposition if stored and handled as prescribed/indicated. |
| Viscosity, dynamic: | 200.000 mPa.s (25.00 °C) |
| Viscosity, kinematic: | No applicable information available. |
| Solubility in water: | Reacts with water. |
| Miscibility in water: | Reacts with water. |
| Solubility (quantitative): | No applicable information available. |
| Solubility (qualitative): | No applicable information available. |
| Evaporation rate: | Value can be approximated from Henry's Law Constant or vapor pressure. |

**Other Information**

If necessary, information on other physical and chemical parameters is indicated in this section.

## Section 10 - STABILITY AND REACTIVITY

**Reactivity**

Corrosion to metals:
No corrosive effect on metal expected.

Oxidizing properties:
Not an oxidizer.

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

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

**Conditions to avoid**
Avoid moisture

**Incompatible materials**
Acids, amines, alcohols, water, alkalines, strong bases, substances/products that react with isocyanates.

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

Thermal decomposition:
No decomposition if stored and handled as prescribed/indicated.

## Section11- TOXICOLOGICAL INFORMATION

**Primary routes of exposure**
Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

**Acute Toxicity/Effects**

Acute toxicity
Assessment of acute toxicity: Inhalation of vapors 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.

Oral
Information on: Diphenylmethane-4,4'-diisocyanate (MDI)
Type of value: LD50
Species: rat (male/female)
Value: > 2,000 mg/kg (Directive 84/449/EEC, B.1)
---

Inhalation
Type of value: LC50
Species: rat (male/female)
Value: 2.0 mg/l (OECD Guideline 403)
---

Dermal
Information on: Diphenylmethane-4,4'-diisocyanate (MDI)
Type of value: LD50
Species: rabbit (male/female)
Value: > 9,400 mg/kg
---

Assessment other acute effects
Assessment of STOT single:
Causes temporary irritation of the respiratory tract.

Irritation/Corrosion
Assessment of irritating effects: Irritating to eyes, respiratory system and skin. Skin contact may result in dermatitis, either irritative or allergic.

Skin
Information on: Diphenylmethane-4,4'-diisocyanate (MDI)
Species: rabbit
Result: Irritating.
Method: Draize test
---

Eye
Information on: Diphenylmethane-4,4'-diisocyanate (MDI)
Species: rabbit
Result: Irritating.
Method: Draize test
---

Sensitization
Assessment of sensitization: Sensitization after skin contact possible. The substance may cause sensitization of the respiratory tract. 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. Animal tests indicate that skin contact may play a role in causing respiratory sensitization.

*Information on: Diphenylmethane-4,4'-diisocyanate*
*(MDI) Buehler test*
*Species: guinea pig*
*Result: sensitizing*

*Mouse Local Lymph Node Assay (LLNA)*
*Species: mouse*
*Result: sensitizing*
*Can cause skin sensitization*

*other*
*Species: guinea pig*
*Result: sensitizing*
*Studies in animals suggest that dermal exposure may lead to pulmonary sensitization. However, the relevance of this result for humans is unclear.*
---
Aspiration Hazard
No aspiration hazard expected.

**Chronic Toxicity/Effects**

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

*Information on: Diphenylmethane-4,4'-diisocyanate (MDI)*
*Experimental/calculated data: rat (Wistar) (male/female) Inhalation 2 yrs, 6 hr/day 0, 0.2, 1, 6 mg/m3 , olfactory epithelium*
*NOAEL: 0.2 mg/m3*
*LOAEL: 1 mg/m3*

*The substance may cause damage to the olfactory epithelium after repeated inhalation. These effects are not relevant to humans at occupational levels of exposure. Repeated inhalative uptake of the substance did not cause damage to the reproductive organs.*
---

Genetic toxicity
Assessment of mutagenicity: The substance was mutagenic in various bacterial test systems; however, these results could not be confirmed in tests with mammals.

*Information on: Diphenylmethane-4,4'-diisocyanate (MDI)*
*Genetic toxicity in vitro: OECD Guideline 471 Ames-test Salmonella typhimurium:with and without metabolic activation ambiguous*

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*Information on: Diphenylmethane-4,4'-diisocyanate (MDI)*
*Genetic toxicity in vivo: OECD Guideline 474 Micronucleus assay rat (male) Inhalation negative No clastogenic effect reported.*

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Carcinogenicity
Assessment of carcinogenicity: 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. IARC Group 3 (not classifiable as to human carcinogenicity).

*Information on: Diphenylmethane-4,4'-diisocyanate (MDI)*
*Assessment of carcinogenicity: 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. IARC Group 3 (not classifiable as to human carcinogenicity).*

*Information on: P-MDI*
*Assessment of carcinogenicity: 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. IARC Group 3 (not classifiable as to human carcinogenicity).*

*Information on: Methylenediphenyl diisocyanate*
*Assessment of carcinogenicity: 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. IARC Group 3 (not classifiable as to human carcinogenicity).*

*Information on: Isocyanic acid, polymethylenepolyphenylene ester, polymer with.alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl)*
*Assessment of carcinogenicity: The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. 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: 1,3-Diazetidine-2,4-dione, 1,3-bis[4-[(4- isocyanatophenyl)methyl]phenyl]-*
*Assessment of carcinogenicity: The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. 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.*

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Experimental/calculated data: OECD Guideline 453 rat Inhalation 0, 0.2, 1, 6 mg/ m3 Result: Lung tumors

Reproductive toxicity
Assessment of reproduction toxicity: Repeated inhalative uptake of the substance did not cause damage to the reproductive organs.

Teratogenicity
Assessment of 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.

Development
OECD Guideline 414 rat Inhalation 0, 1, 4, 12 mg/m3
NOAEL Mat.: 4 mg/m3
NOAEL Teratog.: 4 mg/m3
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.

Other Information
The product has not been tested. The statement has been derived from the properties of the individual components.

**Symptoms of Exposure**
The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Eye irritation, skin irritation, allergic symptoms

Medical conditions aggravated by overexposure
The isocyanate component is a respiratory sensitizer. It may cause allergic reaction leading to asthma-like spasms of the bronchial tubes and difficulty in breathing. Medical supervision of all employees who handle or come into contact with isocyanates is recommended. Contact may aggravate pulmonary disorders. Persons with history of respiratory disease or hypersensitivity should not be exposed to this product. Pre-employment and periodic medical examinations with respiratory function tests (FEV, FVC as a minimum) are suggested. Persons with asthmatic conditions, chronic bronchitis, other chronic respiratory diseases, recurrent eczema or pulmonary sensitization should be excluded from working with isocyanates. Once a person is diagnosed as having pulmonary sensitization (allergic asthma) to isocyanates, further exposure is not recommended.

## Section 12 - ECOLOGICAL INFORMATION

**Toxicity**
Aquatic toxicity
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. Based on long-term (chronic) toxicity study data, the product is very likely not harmful to aquatic organisms.
The product may hydrolyze. 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.

Toxicity to fish
LC0 (96 h) > 1,000 mg/l, Brachydanio rerio (OECD Guideline 203, static)

Aquatic invertebrates
EC50 (24 h) > 1,000 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Aquatic plants
EC0 (72 h) 1,640 mg/l (growth rate), Scenedesmus subspicatus (OECD Guideline 201, static)

**Microorganisms/Effect on activated sludge**
Toxicity to microorganisms
OECD Guideline 209 aquatic
aerobic bacteria from a domestic water treatment plant/EC50 (3 h): > 100 mg/l

**Persistence and degradability**

Assessment biodegradation and elimination (H2O)
Poorly biodegradable. The product is unstable in water. The elimination data also refer to products of hydrolysis.

Elimination information
0 % BOD of the ThOD (28 d) (OECD Guideline 302 C) (aerobic, activated sludge) Poorly biodegradable.

Assessment of stability in water
In contact with water the substance will hydrolyse slowly.

Information on Stability in Water (Hydrolysis)
t1/2 20 h (25 °C)

**Bioaccumulative Potential**

Assessment bioaccumulation potential
Significant accumulation in organisms is not to be expected.

Bioaccumulation potential
Bioconcentration factor: 200 (28 d), Cyprinus carpio (OECD Guideline 305 E)

**Mobility in soil**
Assessment transport between environmental compartments
The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is not expected.

## Section 13 - DISPOSAL CONSIDERATIONS

**Waste disposal of substance:**
Incinerate or dispose of in a licensed facility. Do not discharge substance/product into sewer system. Follow all federal, state and local regulations.

## Section 14 - TRANSPORT INFORMATION

**Containers Greater Than 100 cu. Cm. (1 liter)**
Ground - UN3500 Chemical Under Pressure n.o.s. (Fluorinated hydrocarbon, nitrogen)
2.2 (Non-Flammable Gas Label)

Air - UN3500 Chemical Under Pressure n.o.s. (Fluorinated hydrocarbon, nitrogen)
2.2 (Non-Flammable Gas Label)

Water - UN3500 Chemical Under Pressure n.o.s. (Fluorinated hydrocarbon, nitrogen)
2.2 (Non-Flammable Gas Label)

## Section 15 - REGULATORY INFORMATION

**Federal Regulations**

**Registration status:**

Chemical TSCA, US released / listed

**EPCRA 311/312 (Hazard categories):** Acute; Chronic, Sudden release of pressure

**EPCRA 313:**

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

| CERCLA RQ | CAS Number | Chemical name |
|---|---|---|
| 5000 LBS | 101-68-8; 9016-87-9 | Diphenylmethane-4,4'-diisocyanate (MDI); P-MDI |

**State regulations**

| State RTK | CAS Number | Chemical Name |
|---|---|---|
| NJ | 101-68-8 | Diphenylmethane-4,4'-diisocyanate (MDI) |
| | 9016-87-9 | P-MDI |
| | 26447-40-5 | Methylenediphenyl diisocyanate |
| PA | 101-68-8 | Diphenylmethane-4,4'-diisocyanate (MDI) |
| | 9016-87-9 | P-MDI |

**NFPA Hazard codes:**

Health: 2 Fire: 1 Reactivity: 1 Special:

**HMIS III rating:**
Health: 2¤ Flammability: 1 Physical hazard: 1

## Section 16 - OTHER INFORMATION

| | |
|---|---|
| **ADDITIONAL COMMENTS:** | None |
| **DATE OF PREVIOUS SDS:** | Not Applicable – New Product. |
| **CHANGES SINCE PREVIOUS SDS:** | Not Applicable – New Product. |

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