



GAF
Safety Data Sheet
SDS # 4239
SDS Date: December 2024

SECTION 1: PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: GAF SPF Flashing Foam Part A

MANUFACTURER: GAF

ADDRESS: 1 Campus Drive, Parsippany, NJ 07054

24 HOUR EMERGENCY PHONE: (CHEMTREC) 800-424-9300

INFORMATION ONLY: 877-GAF-ROOF

APPROVED BY: Corporate EHS

SECTION 2: HAZARDS IDENTIFICATION

NFPA and HMIS RATINGS:

	NFPA Hazard Rating		HMIS Hazard Rating
Health	2	Health	2
Flammable	1	Flammable	1
Reactive	1	Reactive	1
Special Hazards	-	Personal Protection	X

GHS LABEL ELEMENTS:

Eye Irritation	2A
Skin Irritation	2
Skin Sensitization	1
Respiratory Sensitization	1
Specific Target Organ Toxicity	3 single exposure
Specific Target Organ Toxicity	1 repeated exposure
Gases under pressure	Compressed Gas

GHS PICTOGRAMS:

SIGNAL WORD: Danger

**HAZARD
STATEMENTS:**

Contains gas under pressure, may explode if heated.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause respiratory irritation.
Causes damage to organs through prolonged or repeated exposure.

**PRECAUTIONARY
STATEMENTS:**

Do not breathe gas.
Use only outdoors or in a well-ventilated area.
[In case of inadequate ventilation] wear respiratory protection.
Do not eat, drink or smoke when using this product.
Wear protective gloves, protective clothing, eye protection and face protection.
Wash all exposed external body areas thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace
If on skin: Wash with plenty of water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
Call a poison center/doctor if you feel unwell.
Specific treatment (see on this label).
Get medical advice/attention if you feel unwell.
Take off contaminated clothing and wash it before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If experiencing respiratory symptoms: Call a poison center/doctor.

Store locked up.
Protect from sunlight. Store in a well-ventilated place.
Store in a well-ventilated place. Keep container tightly closed.

ADDITIONAL HAZARD IDENTIFICATION INFORMATION:**SIGNS & SYMPTOMS OF EXPOSURE****EYES:**

This material may produce eye irritation in some persons and produce eye damage 24 hours or more after exposure. Moderate inflammation may be expected with redness; conjunctivitis may occur with prolonged exposure.

SKIN:

This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition. Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

INGESTION:

The material is not thought to produce adverse health effects following ingestion (as classified by EC Directives using animal models).

Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum.

INHALATION:

Inhalation of vapors or aerosols (mists, fumes), generated by the material during the course of normal handling, may produce toxic effects. The material can cause respiratory irritation in some persons.

ACUTE HEALTH HAZARDS:

See above.

CHRONIC HEALTH HAZARDS:

Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. Inhaling this product is more likely to cause a sensitization reaction in some persons compared to the general population. Skin contact with the material is more likely to cause a sensitization reaction in some persons compared to the general population. Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.

CARCINOGENICITY:

None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

			OCCUPATIONAL EXPOSURE LIMITS		
CHEMICAL NAME	CAS #	% (BY WT)	OSHA	ACGIH	OTHER
Polymeric diphenylmethane diisocyanate	9016-87-9	30 - 60	0.02 ppm	0.005 ppm	NE
Diphenylmethane-4,4'-diisocyanate (MDI)	101-68-8	30 – 60	0.02 ppm – ceiling	0.005 ppm	0.005 ppm; 0.02 ppm – ceiling (10 min.)
1,3,3,3-tetrafluoropropene	29118-24-9	5 - 10	NE	NE	NE
Nitrogen	7727-37-9	<5	NE	NE	NE

NE = Not Established

SECTION 4: FIRST AID MEASURES

FIRST AID PROCEDURES**EYES:**

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN:

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALATION:

If fumes or combustion products are inhaled remove from contaminated area.

- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained.
- Perform CPR if necessary.
- Transport to hospital, or doctor, without delay.

Following uptake by inhalation, move person to an area free from risk of further exposure. Oxygen or artificial respiration should be administered as needed. Asthmatic-type symptoms may develop and may be immediate or delayed up to several hours. Treatment is essentially symptomatic.

A physician should be consulted.

INGESTION:

Immediately give a glass of water.

First aid is not generally required. If in doubt, contact a Poisons Information Center or a doctor.

**NOTES TO PHYSICIANS OR
FIRST AID PROVIDERS:**

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

For gas exposures:

BASIC TREATMENT

Establish a patent airway with suction where necessary.

Watch for signs of respiratory insufficiency and assist ventilation as necessary.

Administer oxygen by non-rebreather mask at 10 to 15 l/min.

Monitor and treat, where necessary, for pulmonary edema.

Monitor and treat, where necessary, for shock.

Anticipate seizures.

ADVANCED TREATMENT

Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.

Positive-pressure ventilation using a bag-valve mask might be of use.

Monitor and treat, where necessary, for arrhythmias.

Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.

Drug therapy should be considered for pulmonary edema.

Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.

Treat seizures with diazepam.

Proparacaine hydrochloride should be used to assist eye irrigation.

BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

For sub-chronic and chronic exposures to isocyanates:

This material may be a potent pulmonary sensitizer which causes bronchospasm even in patients without prior airway hyperactivity.

Clinical symptoms of exposure involve mucosal irritation of respiratory and gastrointestinal tracts.

Conjunctival irritation, skin inflammation (erythema, pain vesiculation) and gastrointestinal disturbances occur soon after exposure.

Pulmonary symptoms include cough, burning, substernal pain and dyspnoea.

Some cross-sensitivity occurs between different isocyanates.

Noncardiogenic pulmonary edema and bronchospasm are the most serious consequences of exposure.

Markedly symptomatic patients should receive oxygen, ventilatory support and an intravenous line.

Treatment for asthma includes inhaled sympathomimetics (epinephrine [adrenalin], terbutaline) and steroids.

Activated charcoal (1 g/kg) and a cathartic (sorbitol, magnesium citrate) may be useful for ingestion.

Mydriatics, systemic analgesics and topical antibiotics (Sulamyd) may be used for corneal abrasions.

There is no effective therapy for sensitized workers.

NOTE: Isocyanates cause airway restriction in naive individuals with the degree of response dependant on the concentration and duration of exposure. They induce smooth muscle contraction which leads to bronchoconstrictive episodes. Acute changes in lung function, such as decreased FEV1, may not represent sensitivity.

[Karol & Jin, Frontiers in Molecular Toxicology, pp 56-61, 1992]

Personnel who work with isocyanates, isocyanate prepolymers or polyisocyanates should have a pre-placement medical examination and periodic examinations thereafter, including a pulmonary function test. Anyone with a medical history of chronic respiratory disease, asthmatic or bronchial attacks, indications of allergic responses, recurrent eczema or sensitization conditions of the skin should not handle or work with isocyanates. Anyone who develops chronic respiratory distress when working with isocyanates should be removed from exposure and examined by a physician. Further exposure must be avoided if a sensitivity to isocyanates or polyisocyanates has developed.

SECTION 5: FIRE FIGHTING PROCEDURES

SUITABLE EXTINGUISHING MEDIA:

Water spray, carbon dioxide, foam or dry chemical. Fight larger fires with water spray. Use fire fighting measures that suit the environment. Small quantities of water in contact with hot liquid may react violently with generation of a large volume of rapidly expanding hot sticky semi-solid foam.

HAZARDOUS COMBUSTION PRODUCTS: carbon monoxide (CO)

carbon dioxide (CO₂)
isocyanates
hydrogen cyanide
and minor amounts of
nitrogen oxides (NO_x)
other pyrolysis products typical of burning organic material.

**RECOMMENDED FIRE FIGHTING
PROCEDURES:**

Firefighters should wear full protective clothing including self contained breathing apparatus.

**UNUSUAL FIRE & EXPLOSION
HAZARDS:**

Containers may burst if overheated. Do not reseal contaminated containers as a hazardous pressure build up could result in container rupture and release of highly toxic isocyanate vapor.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: For small amounts:

Clean up all spills immediately.
Avoid breathing vapors/ aerosols/ or dusts and avoid contact with skin and eyes.
Control personal contact with the substance, by using protective equipment.
Neutralize spill material carefully and decontaminate empty containers and spill residues with 10% ammonia solution plus detergent or a proprietary decontaminant prior to disposal.

For large amounts:

Evacuate area from everybody not dealing with the emergency, keep them upwind and prevent further access, remove ignition sources and, if inside building, ventilate area as well as possible. Notify supervision and others as necessary.
Put on personal protective equipment (suitable respiratory protection, face and eye protection, protective suit, gloves and impermeable boots).
Avoid contamination with water, alkalis and detergent solutions. Material reacts with water and generates gas, pressurizes containers with even drum rupture resulting.
DO NOT reseal container if contamination is suspected.
DO NOT touch the spill material
Clear area of personnel and move upwind.
Alert Fire Brigade and tell them location and nature of hazard.
Wear breathing apparatus plus protective gloves.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE:

Avoid all personal contact, including inhalation.
Wear protective clothing when risk of exposure occurs.
Use in a well-ventilated area.
Store in original containers.
Keep containers securely sealed.
Store in a cool, dry, well-ventilated area.

OTHER PRECAUTIONS:

Empty containers may contain hazardous residuals. Keep away from heat, sparks and open flame. DO NOT cut, drill, puncture, weld or grind on or near full, partially full or empty product containers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**ENGINEERING CONTROLS / VENTILATION:**

Provide adequate local ventilation to maintain worker exposure below exposure limits.

RESPIRATORY PROTECTION:

Use a NIOSH-approved respirator to protect against inhalation of vapors. A respirator should be used if ventilation is unavailable, or is inadequate for keeping vapor levels below the applicable exposure limits. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application.

EYE PROTECTION:

Wear safety glasses and a face shield or chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.

SKIN PROTECTION:

Wear protective gloves and clothing to prevent all skin contact. The material may produce skin sensitization in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. Isocyanate resistant materials include Teflon, Viton, nitrile rubber and some PVA gloves. Protective gloves and overalls should be worn as specified in the appropriate national standard. Contaminated garments should be removed promptly and should not be re-used until they have been decontaminated.

OTHER PROTECTIVE EQUIPMENT:

Eye wash stations and safety showers are recommended.

WORK HYGIENIC PRACTICES:

Wash exposed skin prior to eating, drinking or smoking and at the end of each shift. Immediately remove all soiled and contaminated clothing. Avoid contact with the eyes and skin.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & ODOR:	Amber liquid with a faint aromatic odor.		
FLASH POINT:	> 392 °F	LOWER EXPLOSIVE LIMIT:	No Data
METHOD USED:	Open cup	UPPER EXPLOSIVE LIMIT:	No Data
EVAPORATION RATE:	No Data	BOILING POINT:	406 °F
IGNITION TEMPERATURE:	No Data	MELTING POINT:	No Data
SOLUBILITY IN WATER:	Reacts with water	SPECIFIC GRAVITY:	1.2
VAPOR DENSITY:	Not Applicable	PERCENT VOLATILE:	No Data

VAPOR PRESSURE:	No Data	MOLECULAR WEIGHT:	No Data
VOC (G/L) after mixing:	36	SPECIFIC GRAVITY (LBS/GAL):	No Data

SECTION 10: STABILITY AND REACTIVITY

THERMAL STABILITY:

STABLE ☒UNSTABLE ☐

CONDITIONS TO AVOID (STABILITY):

Contact with moisture. The product is stable if stored and handled as prescribed/indicated in section 7.

INCOMPATIBILITY (MATERIAL TO AVOID):

Avoid reaction with water, alcohols and detergent solutions.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

carbon monoxide (CO)
carbon dioxide (CO₂)
isocyanates
hydrogen cyanide
and minor amounts of
nitrogen oxides (NO_x)
other pyrolysis products typical of burning organic material.

HAZARDOUS POLYMERIZATION:

Risk of polymerization.

SECTION 11: TOXICOLOGICAL INFORMATION**Inhaled**

Inhalation of vapors or aerosols (mists, fumes), generated by the material during the course of normal handling, may produce toxic effects.

The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

The vapor/mist may be highly irritating to the upper respiratory tract and lungs; the response may be severe enough to produce bronchitis and pulmonary edema. Possible neurological symptoms arising from isocyanate exposure include headache, insomnia, euphoria, ataxia, anxiety neurosis, depression and paranoia. Gastrointestinal disturbances are characterized by nausea and vomiting.

Inhalation of non-toxic gases may cause:

- CNS effects: headache, confusion, dizziness, stupor, seizures and coma;
- respiratory: shortness of breath and rapid breathing;
- cardiovascular: collapse and irregular heart beats;
- gastrointestinal: mucous membrane irritation, nausea and vomiting.

Ingestion

The material is not thought to produce adverse health effects following ingestion (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum.

Not normally a hazard due to physical form of product.

Considered an unlikely route of entry in commercial/industrial environments

Accidental ingestion of the material may be seriously damaging to the health of the individual; animal experiments indicate that ingestion of less than 40 gram may be fatal.

Skin Contact

This material can cause inflammation of the skin on contact in some persons.

The material may accentuate any pre-existing dermatitis condition

Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

Open cuts, abraded or irritated skin should not be exposed to this material

Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Eye Contact

This material may produce eye irritation in some persons and produce eye damage 24 hours or more after instillation. Moderate inflammation may be expected with redness; conjunctivitis may occur with prolonged exposure.

Chronic

Long-term exposure to respiratory irritants may result in airways disease, involving difficulty breathing and related whole-body problems. Inhaling this product is more likely to cause a sensitization reaction in some persons compared to the general population. Skin contact with the material is more likely to cause a sensitization reaction in some persons compared to the general population.

Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects.

Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

This product contains a polymer with a functional group considered to be of high concern. Isothiocyanates may cause hypersensitivity of the skin and airways.

The reactivity of an epoxide intermediate may be the reason for the cancer-causing properties of halogenated oxiranes. It is reported that 1,1-dichloroethyne, vinyl chloride, trichloroethylene, tetrachloroethylene and chloroprene all cause cancer.

Generally speaking, substances with one halogen substitution show higher potential to cause cancer compared to substances with two.

Persons with a history of asthma or other respiratory problems or are known to be sensitized, should not be engaged in any work involving the handling of isocyanates.

The chemistry of reaction of isocyanates, as evidenced by MDI, in biological milieu is such that in the event of a true exposure of small MDI doses to the mouth, reactions will commence at once with biological macromolecules in the buccal region and will continue along the digestive tract prior to reaching the stomach.

Reaction products will be a variety of polyureas and macromolecular conjugates with for example mucus, proteins and cell components.

Animal testing shows that polymeric MDI can damage the nasal cavities and lungs, causing inflammation and increased cell growth.

There has been concern that this material can cause cancer or mutations, but there is not enough data to make an assessment.

Isocyanate vapors are irritating to the airways and can cause their inflammation, with wheezing, gasping, severe distress, even loss of consciousness and fluid in the lungs. Nervous system symptoms that may occur include headache, sleep disturbance, euphoria, inco-ordination, anxiety, depression and paranoia.

4,4'-diphenylmethane diisocyanate (MDI)

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >6200 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]
Inhalation (Rat) LC50: 0.368 mg/L4h ^[1]	Skin (rabbit): 500 mg /24 hours Dermal Sensitiser *Respiratory Sensitiser (g.pig) *[[*] = Bayer CCINFO 2133615]
Oral (Mouse) LD50: 2200 mg/kg ^[2]	Skin: adverse effect observed (irritating) ^[1]

Inhalation (human) TClO: 0.13 ppm/30 mins Eye (rabbit): 0.10 mg moderate

Polymeric diphenylmethane diisocyanate

TOXICITY	IRRITATION
Dermal (rabbit) LD50: >9400 mg/kg ^[2]	Eye (rabbit): 100 mg - mild
Inhalation (Rat) LC50: 0.49 mg/L4h ^[2]	
Oral (Rat) LD50: 43000 mg/kg ^[2]	

Isocyanate vapors are irritating to the airways and can cause their inflammation, with wheezing, gasping, severe distress, even loss of consciousness and fluid in the lungs. Nervous system symptoms that may occur include headache, sleep disturbance, euphoria, inco-ordination, anxiety, depression and paranoia.

1,3,3,3-tetrafluoropropene

TOXICITY	IRRITATION
Inhalation (Rat) LC50: >1157.752 ppm4h ^[2]	Skin: no adverse effect observed (not irritating) ^[1]

Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.

Allergic reactions involving the respiratory tract are usually due to interactions between IgE antibodies and allergens and occur rapidly. Allergic potential of the allergen and period of exposure often determine the severity of symptoms. Some people may be genetically more prone than others, and exposure to other irritants may aggravate symptoms.

Attention should be paid to atopic diathesis, characterized by increased susceptibility to nasal inflammation, asthma and eczema. Exogenous allergic alveolitis is induced essentially by allergen specific immune-complexes of the IgG type; cell-mediated reactions (T lymphocytes) may be involved. Such allergy is of the delayed type with onset up to four hours following exposure.

The following information refers to contact allergens as a group and may not be specific to this product.

Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.

SECTION 12: ECOLOGICAL INFORMATION

Polyisocyanates are not readily biodegradable. However, due to other elimination mechanisms (hydrolysis, adsorption), long retention times in water are not to be expected. The resulting polyurea is more or less inert and, due to its molecular size, not bioavailable.

For Isocyanate Monomers:

Environmental Fate: Isocyanates, (di- and polyfunctional isocyanates), are commonly used to make various polymers, such as polyurethanes. Polyurethanes find significant application in the manufacture of rigid and flexible foams. They are also used in the production of adhesives, elastomers, and coatings.

DO NOT discharge into sewer or waterways.

4,4'-diphenylmethane diisocyanate (MDI)

Endpoint	Test Duration (hr)	Species	Value	Source
BCF	672h	Fish	61-150	7
NOEC(ECx)	504h	Crustacea	>=10mg/l	2
LC50	96h	Fish	>100mg/l	2
EC50	48h	Crustacea	>100mg/l	2

Polymeric diphenylmethane diisocyanate

Endpoint	Test Duration (hr)	Species	Value	Source
Not Available	Not Available	Not Available	Not Available	Not Available

1,3,3,3-tetrafluoropropene

Endpoint	Test Duration (hr)	Species	Value	Source
EC50	72h	Algae or other aquatic plants	>170mg/l	2
ErC50	72h	Algae or other aquatic plants	>170mg/l	2
EC50	48h	Crustacea	>160mg/l	2
LC50	96h	Fish	>117mg/l	2
EC50(ECx)	48h	Crustacea	>160mg/l	2
EC50	72h	Algae or other aquatic plants	>10mg/l	2
EC50(ECx)	72h	Algae or other aquatic plants	>10mg/l	2

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
4,4'-diphenylmethane diisocyanate (MDI)	LOW (Half-life = 1 days)	LOW (Half-life = 0.24 days)

Bioaccumulative potential

Ingredient	Bioaccumulation
4,4'-diphenylmethane diisocyanate (MDI)	LOW (BCF = 15)

Mobility in soil

Ingredient	Mobility
4,4'-diphenylmethane diisocyanate (MDI)	LOW (Log KOC = 376200)

SECTION 13: DISPOSAL CONSIDERATIONS**WASTE DISPOSAL METHOD:**

Dispose of in a licensed facility according to federal, state, and local waste regulations. Do not discharge chemical into sewer system or allow to contaminate soil. Neutralize spill material carefully and decontaminate empty containers and spill residues with 10% ammonia solution plus detergent or a proprietary decontaminant prior to disposal.

SECTION 14: TRANSPORTATION INFORMATION**DOT**

Hazard class: 2.2
 ID number: UN 3500
 Hazard label: 2.2
 Proper shipping name: CHEMICAL UNDER PRESSURE, N.O.S. (Hydrofluoroolefin, Nitrogen)

IATA

Hazard class: 2.2
 ID number: UN 3500
 Hazard label: 2.2
 Proper shipping name: CHEMICAL UNDER PRESSURE, N.O.S. (Hydrofluoroolefin, Nitrogen)
 ERG Code: 2L

IMDG

Hazard class: 2.2
 ID number: UN 3500
 Hazard label: 2.2
 Marine pollutant: No
 Proper shipping name: CHEMICAL UNDER PRESSURE, N.O.S. (Hydrofluoroolefin, Nitrogen)
 EMS: F-C, S-V

SECTION 15: REGULATORY INFORMATION

311/312 HAZARD CATEGORIES: Acute Health Hazard, Chronic Health Hazard

TSCA

This product and its components are listed on the TSCA 8(b) inventory.

EPCRA 311/312 (Hazard categories):

Gas under pressure.
 Skin Corrosion or Irritation
 Respiratory or Skin Sensitization
 Serious eye damage or eye irritation
 Specific target organ toxicity (single or repeated exposure)

EPCRA 313:

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

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

15.2 State regulations

<u>State RTK</u>	<u>CAS Number</u>	<u>Chemical name</u>
PA	101-68-8	Diphenylmethane-4,4'-diisocyanate (MDI)
NJ	101-68-8	Diphenylmethane-4,4'-diisocyanate (MDI)

NFPA Hazard codes:

Health: 2	Fire: 1	Reactivity: 1	Special:
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HMIS III rating:

Health: 2*	Flammability: 1	Physical hazard: 1
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CALIFORNIA PROP. 65: Not applicable.

SECTION 16: OTHER INFORMATION

ADDITIONAL COMMENTS: None

DATE OF PREVIOUS SDS: New SDS

CHANGES SINCE PREVIOUS SDS: New SDS

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief accurate and reliable as of the date compiled. However, no representation, warranty or guarantee, expressed or implied, is made as to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his particular use. We do not accept liability for any loss or damage that may occur from the use of this information. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license of valid patents.