



## PROFOAM CORPORATION

### Safety Data Sheet

#### ProFill - Part A

Version 1.0 • Date of issue: 2025-12-11

#### SECTION 1: Identification

##### GHS Product identifier

Product name ProFill - Part A

Brand PROFOAM

##### Recommended use of the chemical and restrictions on use

Component A of polyurethane system (For Professional Use Only)

##### Supplier's details

Name Profoam Corporation  
Address 145 Newborn Rd.  
Rutledge GA 30663  
United States

Telephone 706-557-1400  
email [orders@profoam.com](mailto:orders@profoam.com)

#### SECTION 2: Hazard identification

##### Classification of the substance or mixture

##### GHS classification in accordance with: OSHA (29 CFR 1910.1200, 2012)

- Acute toxicity, inhalation, Cat. 4
- Skin corrosion/irritation, Cat. 2
- Eye damage/irritation, Cat. 2B
- Sensitization, respiratory, Cat. 1
- Sensitization, skin, Cat. 1
- Specific target organ toxicity (repeated exposure), Cat. 2
- Specific target organ toxicity (single exposure), Cat. 3

##### GHS label elements, including precautionary statements Pictograms

##### Signal word



##### Hazard statement(s)

H315+H320

H317

H332

Causes skin and eye irritation  
May cause an allergic skin reaction  
Harmful if inhaled

H334

H335

May cause allergy or asthma symptoms or breathing difficulties if inhaled  
May cause respiratory irritation

##### Precautionary statement(s)

P260

P261

P264

P271

P272

P280

Do not breathe dust/fume/gas/mist/vapors/spray.  
Avoid breathing dust/fume/gas/mist/vapors/spray.  
Wash ... thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
[In case of inadequate ventilation] wear respiratory protection.  
IF ON SKIN: Wash with plenty of water/...

P284

P302+P352

# Safety Data Sheet

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P304+P340  
P305+P351+P338

P308+P313  
P311  
P312  
P314  
P321

P332+P313  
P333+P313  
P337+P313  
P342+P311  
P362+P364  
P363

P403+P233  
P405  
P501

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/...  
Call a POISON CENTER/doctor/.../ if you feel unwell.  
Get medical advice/attention if you feel unwell.  
Specific treatment (see ... on this label).  
If skin irritation occurs: Get medical advice/attention.  
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/...  
Take off contaminated clothing and wash it before reuse.  
Wash contaminated clothing before reuse.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

### SECTION 3: Composition/information on ingredients

#### Mixtures

| Component                                                               | Identification     | Weight %  |
|-------------------------------------------------------------------------|--------------------|-----------|
| 4,4'-Diphenylmethanediisocyanate, isomer, homologue and mixtures (pMDI) | CAS no.: 9016-87-9 | 50 - 60 % |
| 4,4'-Methylenediphenyl diisocyanate (MDI)                               | CAS no.: 101-68-8  | 35 - 45 % |
| 2,4'-Diphenylmethane diisocyanate                                       | CAS no.: 5873-54-1 | 1 - 5 %   |
| Benzene, 1,1'-methylenebis[2-isocyanato-                                | CAS no.: 2536-05-2 | 0.1 - 1 % |

### SECTION 4: First-aid measures

#### Description of necessary first-aid measures

General advice

Move out of dangerous area. Do not leave the victim unattended. Get medical attention immediately if symptoms occur. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. Call a physician or poison control center immediately. Keep patient warm and at rest. Keep respiratory tract clear. If breathing is difficult, give oxygen. If breathing is irregular or stopped, administer artificial respiration. If unconscious, place in recovery position and seek medical advice. Consult a physician immediately if symptoms such as shortness of breath or asthma are observed. A hyper-reactive response to even minimal concentrations of diisocyanates may develop in sensitized persons. The exposed person may need to be kept under medical surveillance for 48 hours. LC50 (rat) : ca. 490 mg/m<sup>3</sup> (4 hours): using experimentally produced respirable aerosol having aerodynamic diameter <5microns. Methods used to generate exposure concentrations in the animal studies use extreme laboratory conditions and do not represent actual exposure conditions of the material in the workplace, storage, transportation or expected use on the market due to the very low vapor pressure. Therefore, these test results cannot be used for hazard classification of the material. Rather, an acute toxicity estimate is calculated based on weight of evidence and expert judgement and is used to justify a modified classification for acute inhalation toxicity.

In case of skin contact

In case of contact, immediately flush skin with soap and plenty of water. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before reuse. Thoroughly clean shoes before reuse. Call a

physician if irritation develops or persists. An MDI study has demonstrated that a polyglycol-based skin cleanser (such as D-Tam™, PEG-400) or corn oil may be more effective than soap and water.

In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If easy to do, remove contact lens, if worn. Protect unharmed eye. Keep eye wide open while rinsing. Seek medical advice.

If swallowed

Gently wipe or rinse the inside of the mouth with water. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Keep respiratory tract clear. Keep at rest. If a person vomits when lying on his back, place him in the recovery position. Never give anything by mouth to an unconscious person. Take victim immediately to hospital. If symptoms persist, call a physician.

Personal protective equipment for first-aid responders

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If potential for exposure exists refer to Section 8 for specific personal protective equipment. First Aid responders should pay attention to self-protection and use the recommended protective clothing

#### **Most important symptoms/effects, acute and delayed**

Severe allergic skin reactions, bronchospasm and anaphylactic shock. This product is a respiratory irritant and potential respiratory sensitizer: repeated inhalation of vapor or aerosol at levels above the occupational exposure limit could cause respiratory sensitization. Symptoms may include irritation to the eyes, nose, throat and lungs, possibly combined with dryness of the throat, tightness of chest and difficulty in breathing.

The onset of the respiratory symptoms may be delayed for several hours after exposure. A hyper-reactive response to even minimal concentrations of MDI may develop in sensitized persons.

#### **Indication of immediate medical attention and special treatment needed, if necessary**

Symptomatic and supportive therapy as needed. Following severe exposure medical follow-up should be monitored for at least 48 hours. The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

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## **SECTION 5: Fire-fighting measures**

### **Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

### **Specific hazards arising from the chemical**

Combustion products may include: carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons and HCN. In the event of extreme heat (>500 degrees C), aniline is suspected of being formed.

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4,4'-Methylenediphenyl diisocyanate (MDI) : Carbon oxides, Nitrogen oxides (NO<sub>x</sub>)

### **Special protective actions for fire-fighters**

Wear an approved positive pressure self-contained breathing apparatus in addition to standard firefighting gear.

### **Further information**

Water may be used if no other available and then in copious quantities. Reaction between water and hot isocyanate may be vigorous. Do not allow run-off from fire fighting to enter drains or water courses. The pressure in sealed containers can increase under the influence of heat. Exposure to decomposition products may be a hazard to health. Standard procedure for chemical fires. Due to reaction with water producing CO<sub>2</sub>-gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## **SECTION 6: Accidental release measures**

### **Personal precautions, protective equipment and emergency procedures**

Immediately evacuate personnel to safe areas. Use personal protective equipment. If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Only qualified personnel equipped with suitable protective equipment may intervene. For additional precautions and advice on safe handling, see section 7. Never return spills in original containers for re-use. Make sure that there is a sufficient amount of neutralizing/ absorbent material near the storage area. The danger areas

must be delimited and identified using relevant warning and safety signs. Treat recovered material as described in the section "Disposal considerations". For disposal considerations see section 13.

#### **Environmental precautions**

Do not allow uncontrolled discharge of product into the environment. Do not allow material to contaminate ground water system. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained. If the product contaminates rivers and lakes or drains inform respective authorities.

#### **Methods and materials for containment and cleaning up**

Clean-up methods - small spillage Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Clean contaminated surface thoroughly. Sweep up or vacuum up spillage and collect in suitable container for disposal. Neutralize small spillages with decontaminant. The compositions of liquid decontaminants are given in Section 16. Remove and dispose of residues. Clean-up methods - large spillage If the product is in its solid form: Spilled MDI flakes should be picked up carefully.

The area should be vacuum cleaned to remove remaining dust particles completely. If the product is in its liquid form: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Leave to react for at least 30 minutes. Shovel into open-top drums for further decontamination. Wash the spillage area with water. Test atmosphere for MDI vapour. Keep in suitable, closed containers for disposal.

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## **SECTION 7: Handling and storage**

#### **Precautions for safe handling**

Ensure that eyewash stations and safety showers are close to the workstation location. Use only with adequate ventilation. For personal protection see section 8. Avoid formation of aerosol. Do not breathe vapors or spray mist. Do not breathe vapors/dust. Do not swallow. Do not get in eyes or mouth or on skin. Do not get on skin or clothing. Avoid exposure - obtain special instructions before use. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Keep container closed when not in use. Open drum carefully as content may be under pressure.

Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Industrial use of aprotic polar solvents for cleaning can release hazardous primary aromatic amines (>0.1%)

#### **Conditions for safe storage, including any incompatibilities**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labelled containers. Observe label precautions. Protect from moisture. Electrical installations / working materials must comply with the technological safety standards. Containers which are opened must be carefully resealed and kept upright to prevent leakage. For incompatible materials please refer to Section 10 of this SDS.

#### **Specific end use(s)**

Normal measures for preventive fire protection. Stable under recommended storage conditions.

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## **SECTION 8: Exposure controls/personal protection**

#### **Control parameters**

##### **CAS: 101-68-8**

4,4'-Methylenediphenyl diisocyanate (MDI)

AU/SWA (AU): See Isocyanates, all ppm TWA inhalation [Methylene bisphenyl isocyanate (MDI)]; Cal/OSHA (US): 0.005 ppm PEL inhalation [Methylene bisphenyl isocyanate (MDI)]; NIOSH (US): 0.05 mg/m<sup>3</sup>, (C) 0.2 mg/m<sup>3</sup> [10-min] REL inhalation [Methylene bisphenyl isocyanate (MDI)]; US/OSHA (US): (C) 0.02 ppm PEL inhalation [Methylene bisphenyl isocyanate (MDI)]; (C) 0.2 mg/m<sup>3</sup> PEL inhalation [Methylene bisphenyl isocyanate (MDI)]

#### **Individual protection measures, such as personal protective equipment (PPE) Eye/face protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Chemical splash goggles. Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded. Please follow all applicable local/national requirements when selecting protective measures for a specific workplace. Ensure that eyewash stations and safety showers are close to the workstation location.

#### **Skin protection**

Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place. Recommended: Overall (preferably heavy cotton) or Tyvek-Pro Tech 'C', Tyvek Pro 'F' disposable coverall.

**Body protection**

The suitability for a specific workplace should be discussed with the producers of the protective gloves. Protective gloves should be worn when handling freshly made polyurethane products to avoid contact with trace residual materials which may be hazardous in contact with skin.

Use chemical resistant gloves classified under Standard EN374: protective gloves against chemicals and microorganisms. Examples of glove materials that might provide suitable protection include: Butyl rubber, Chlorinated polyethylene, Polyethylene, Ethyl vinyl alcohol copolymers laminated ("EVAL"), Polychloroprene (Neoprene\*), Nitrile/ butadiene rubber ("nitrile" or "NBR"), Polyvinyl chloride ("PVC" or "vinyl"), Fluoroelastomer (Viton\*). When prolonged or frequently repeated contact may occur, a glove with protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN374) is recommended. When only brief contact is expected, a glove with protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN374) is recommended. Notice: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to : other chemicals that may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as instructions/specifications provided by the glove supplier By industrial use of aprotic polar solvents for cleaning : Butyl rubber (0.7mm), Nitrile rubber (0.4mm), Chloroprene (0.5mm).

Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Ensure that eye flushing systems and safety showers are located close to the working place. Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.

When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. Wash hands before breaks and at the end of workday.

**Respiratory protection**

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. In emergency, non-routine and unknown exposure situations, including confined space entries, a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied air respirator (SAR) with auxiliary self-contained air supply, should be used.

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**SECTION 9: Physical and chemical properties**

|                                              |                                                                                                                                   |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Appearance (physical state, color, etc.)     | Liquid                                                                                                                            |
| Odor                                         | Slight, musty                                                                                                                     |
| Odor threshold                               | No data is available on the product itself.                                                                                       |
| pH                                           | No data is available on the product itself.                                                                                       |
| Melting point/freezing point                 | No data is available on the product itself.                                                                                       |
| Initial boiling point and boiling range      | No data is available on the product itself.                                                                                       |
| Flash point                                  | > 302 °F / > 150 °C                                                                                                               |
| Evaporation rate                             | No data is available on the product itself.                                                                                       |
| Flammability (solid, gas)                    | No data is available on the product itself.                                                                                       |
| Upper/lower flammability or explosive limits | No data is available on the product itself. Vapor                                                                                 |
| pressure                                     | < 0.00001 hPa (68 °F / 20 °C)                                                                                                     |
| Vapor density                                | No data is available on the product itself.                                                                                       |
| Relative density                             | 1.23 g/cm <sup>3</sup> (77 °F / 25 °C)                                                                                            |
| Solubility(ies)                              | Decomposes in contact with water. (68 °F / 20 °C)<br>Method: Information given is based on data obtained from similar substances. |
| Partition coefficient: n-octanol/water       | No data is available on the product itself.                                                                                       |
| Auto-ignition temperature                    | No data is available on the product itself.                                                                                       |
| Decomposition temperature                    | No data is available on the product itself.                                                                                       |
| Viscosity                                    | 200 mPa.s (77 °F / 25 °C)                                                                                                         |
| <b>Additional properties</b>                 |                                                                                                                                   |
| Physical state                               | Liquid                                                                                                                            |
| Color                                        | Brown, Clear                                                                                                                      |
| Oxidizing properties                         | No data is available on the product itself.                                                                                       |
| Particle characteristics                     | No data is available on the product itself.                                                                                       |

## SECTION 10: Stability and reactivity

### Reactivity

No dangerous reaction known under conditions of normal use.

### Chemical stability

Stable under normal conditions.

### Possibility of hazardous reactions

Reaction with water (moisture) produces CO<sub>2</sub>-gas. Exothermic reaction with materials containing active hydrogen groups. The reaction becomes progressively more vigorous and can be violent at higher temperatures if the miscibility of the reaction partners is good or is supported by stirring or by the presence of solvents. MDI is insoluble with, and heavier than water and sinks to the bottom but reacts slowly at the interface. A solid water-insoluble layer of polyurea is formed at the interface by liberating carbon dioxide gas.

### Conditions to avoid

Extremes of temperature and direct sunlight. Exposure to air or moisture over prolonged periods.

### Incompatible materials

Acids, Amines, Bases, Metals, Water

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4,4'-Diphenylmethanediisocyanate, isomers, homologue and mixtures (pMDI): Bases, Strong oxidizing agents, Alcohols

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4,4'-Methylenediphenyl diisocyanate (MDI) : Water, Amines, Strong bases, Alcohols

### Hazardous decomposition products

Combustion products may include: carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons and HCN. In the event of extreme heat (>500 degrees C), aniline is suspected of being formed.

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## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

// ----- From the Suggestion report (12/11/2025, 9:26 AM)----- //

The ATE (vapor inhalation) of the mixture is: 9.91 mg/l

// ----- From the Suggestion report (12/11/2025, 9:26 AM)----- //

The ATE (gas inhalation) of the mixture is: 4054.05 ppmV

#### Skin corrosion/irritation

Components:

Diphenylmethanediisocyanate: Species: Rabbit Assessment: Irritating to skin. Method: OECD Test Guideline 404 Result: Skin irritation

4,4'-methylenediphenyl diisocyanate: Species: Rabbit Method: OECD Test Guideline 404 Result: Irritating to skin.

#### Serious eye damage/irritation

Components:

Diphenylmethanediisocyanate: Species: Rabbit Result: Irritation to eyes, reversing within 7 days Assessment: Mild eye irritant Method: OECD Test Guideline 405

4,4'-methylenediphenyl diisocyanate: Species: Rabbit Result: Mild eye irritation

#### Respiratory or skin sensitization

Components:

Diphenylmethanediisocyanate: Exposure routes: Skin Species: Guinea pig Method: OECD Test Guideline 406 Result: May cause sensitisation by skin contact. Exposure routes: Respiratory Tract Species: Rat Result: May cause sensitisation by inhalation.

4,4'-methylenediphenyl diisocyanate: Exposure routes: Skin Species: Mouse Method: OECD Test Guideline 429 Result: May cause sensitisation by skin contact. Exposure routes: Respiratory Tract Species: Guinea pig Result: May cause sensitisation by inhalation.

Assessment: May cause an allergic skin reaction., May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Germ cell mutagenicity

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Genotoxicity in vitro: Concentration: 200 ug/plate Metabolic activation: with and without metabolic activation Method: Directive 67/548/EEC, Annex, B.13/14 Result: negative  
Genotoxicity in vivo: Application Route: Inhalation Result: Not classified due to inconclusive data. Application Route: Inhalation  
Exposure time: 3 Weeks Dose: 113 mg/m<sup>3</sup> Method: OECD Test Guideline 474 Result: negative

Germ cell mutagenicity- Assessment: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

### Carcinogenicity

Remarks: Rats have been exposed for two years to a respirable aerosol of polymeric MDI which resulted in a chronic pulmonary irritation at high concentrations. Only at the top level (6 mg/m<sup>3</sup>), there was a significant incidence of a benign tumor of the lung (adenoma) and one malignant tumor (adenocarcinoma). There were no lung tumors at 1 mg/m<sup>3</sup> and no effects at 0.2 mg/m<sup>3</sup>. Overall, the tumor incidence, both benign and malignant, and the number of animals with the tumors were not different from controls. The increased incidence of lung tumors is associated with prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung, which occurred throughout the study. In the absence of prolonged exposure to high concentrations leading to chronic irritation and lung damage, it is highly unlikely that tumor formation will occur.

Remarks: Industrial use of aprotic polar solvents for cleaning can release hazardous primary aromatic amines (>0.1%) Based on animal studies, primary aromatic amines are considered as potential carcinogen to humans. Some of those chemicals are proven carcinogens to humans Provided the recommended personal protective equipment and hygiene measures are applied, no adverse effects to human health are to be expected.

Species: Rat, male and female Application Route: Inhalation Exposure time: 24-month(s) Dose: 1 mg/m<sup>3</sup> Frequency of Treatment: 5 daily Method: OECD Test Guideline 453 Result: positive

Species: Rat, male and female Application Route: Inhalation Exposure time: 24-month(s) Dose: 1 mg/m<sup>3</sup> Frequency of Treatment: 5 daily Method: OECD Test Guideline 453 Result: positive

Carcinogenicity - Assessment: No data available

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### Reproductive toxicity

Effects on fertility: Species: Rat, male and female Application Route: Inhalation Method: OECD Test Guideline 414 Remarks: No significant adverse effects were reported

Effects on fetal development: Species: Rat, male and female Application Route: Inhalation General Toxicity Maternal: 4 mg/m<sup>3</sup> Method: OECD Test Guideline 414 Result: No teratogenic effects

Reproductive toxicity - Assessment: No toxicity to reproduction No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

### Specific target organ toxicity (STOT) - single exposure

Exposure routes: Inhalation Target Organs: Respiratory Tract Assessment: May cause respiratory irritation

### Specific target organ toxicity (STOT) - repeated exposure

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure. Remarks: Lung decrement has been reported in some studies as a consequence of repeated exposure to MDI. However, this effect can only be observed after inhalation exposure in the tissue at the point of contact and does not represent systemic toxicity. It is a local effect that is already covered by respiratory irritation (STOT single exposure, Cat. 3) and respiratory sensitization (Category 1).

In some humans, but not all, epidemiological studies have found long term decreases in ventilatory function and respiratory symptoms (EU RA 2005). However, there is generally coexposure to other materials and sometimes also to toluene diisocyanate which may have contributed to lung decrement. Therefore, it is concluded that possible lung effects do not qualify as specific target organ toxicity after repeated exposure in accordance to chapter 3.9.1.6 of the GHS (UNECE 2003). In addition, all warning and safety measures for local effects as well as for acute inhalation toxicity already provide for the protection of workers and professional users that are involved in the handling of MDI.

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Repeated dose toxicity: Species: Rat, male and female NOEC: 0.2 mg/m<sup>3</sup> Exposure time: 17,520 h Number of exposures: 5 d Method: OECD Test Guideline 453

Repeated dose toxicity - Assessment: No data available

### Aspiration hazard

No data available

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## SECTION 12: Ecological information

### Toxicity

Fish - Product: LC50 (Brachydanio rerio (zebrafish)): > 1,000 mg/l Exposure time: 96 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 203 LC0: > 1,000 mg/l Exposure time: 96 h

Daphnia and other aquatic invertebrates - Product: EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 24 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 202 Algae/aquatic plants - Product: EC50 (Desmodesmus subspicatus (green algae)): > 1,640 mg/l Exposure time: 72 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity): No data available Toxicity to fish (Chronic toxicity): No data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) - Product: NOEC (Daphnia magna (Water flea)): >= 10 mg/l Exposure time: 21 d Test Type: semi-static test Test substance: Fresh water Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity): No data available

Toxicity to microorganisms - Product: EC50 (activated sludge): > 100 mg/l Exposure time: 3 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 209

Toxicity to soil dwelling organisms - Product: EC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg Exposure time: 336 h Method: OECD Test Guideline 207

Plant toxicity: No data available

Sediment toxicity: No data available

Toxicity to terrestrial organisms: No data available

Ecotoxicology Assessment Acute aquatic toxicity: No data available Chronic aquatic toxicity: No data available

Toxicity Data on Soil: No data available

Other organisms relevant to the environment: No data available

### Persistence and degradability

Biodegradability - Product: Inoculum: Domestic sewage Concentration: 30 mg/l Result: Not biodegradable Biodegradation: 0 % Exposure time: 28 d Method: Inherent Biodegradability: Modified MITI Test (II)

Biochemical Oxygen Demand (BOD): No data available

Chemical Oxygen Demand (COD): No data available BOD/COD: No data available

ThOD: No data available

BOD/ThOD: No data available

Dissolved organic carbon (DOC): No data available

Physico-chemical removability: No data available

Diphenylmethanediisocyanate - Stability in water: Degradation half-life(DT50): 0.8 d (77 °F / 25 °C) Method: No information available. Remarks: Fresh water

4,4'-methylenediphenyl diisocyanate: -Stability in water: Degradation half-life(DT50): 20 hrs (77 °F / 25 °C) Remarks: Fresh water

Photodegradation: No data available

Impact on Sewage Treatment: No data available

**Bioaccumulative potential**

Bioaccumulation - Product: Species: Cyprinus carpio (Carp) Bioconcentration factor (BCF): 200 Remarks: Bioaccumulation is unlikely

4,4'-methylenediphenyl diisocyanate: Partition coefficient: noctanol/water: log Pow: 4.51 (68 °F / 20 °C) pH: 7 Method: OECD Test Guideline 117

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

No data available

**Endocrine disrupting properties**

No data available

**Other adverse effects**

Ozone-Depletion Potential: Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

**SECTION 13: Disposal considerations**

**Disposal methods**

**Product disposal**

Waste from residues: Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

**Packaging disposal**

Contaminated packaging: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

**SECTION 14: Transport information**

**DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

**SECTION 15: Regulatory information**

| Component                                                                | CAS no.   | RTK (US) for state: | TSCA (US) <sup>1</sup> | CA Prop. 65 <sup>2</sup> | pfas <sup>3</sup> |
|--------------------------------------------------------------------------|-----------|---------------------|------------------------|--------------------------|-------------------|
| 4,4'-Methylenediphenyl diisocyanate (MDI)                                | 101-68-8  | MA, NJ, PA          | P                      | -                        | -                 |
| 4,4'-Diphenylmethanediisocyanate, isomers, homologue and mixtures (pMDI) | 9016-87-9 | NJ                  | P                      | -                        | -                 |
| 2,4'-Diphenylmethane diisocyanate                                        | 5873-54-1 | -                   | P                      | -                        | -                 |
| Benzene-,1,1'-methylenebis[2-isocyanato-                                 | 2536-05-2 | -                   | P                      | -                        | -                 |

<sup>1</sup> "P"—Public list, "C"—Confidential list. <sup>2</sup> "c"—cancer, "r"—reproductive harm. <sup>3</sup> "pfas"—Per- and polyfluoroalkyl substances.

| Regulation                                                 | Applicability                                                                             |
|------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Massachusetts Toxic Use Reduction Act (TURA) list          | Chemical name: Polymeric diphenylmethane diisocyanate<br>CAS number: 9016-87-9            |
| Massachusetts Toxic Use Reduction Act (TURA) list          | Chemical name: MDI<br>CAS number: 101-688                                                 |
| Minnesota Chemicals of High Concern (Minn. Stat. 116.9401) | Chemical name: Methylene Diphenyl Diisocyanate and Polymeric MDI<br>CAS number: 9016-87-9 |
| Minnesota Chemicals of High Concern (Minn. Stat. 116.9401) | Chemical name: Methylenebis (4-Phenylisocyanate)<br>CAS number: 101-68-8                  |

**Chemical Safety Assessment**

California Prop. 65: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SARA 311/312 Hazards: Acute toxicity (any route of exposure) Skin corrosion or irritation Serious eye damage or eye irritation  
Respiratory or skin sensitisation Specific target organ toxicity (single or repeated exposure)

SARA 313: The following components are subject to reporting levels established by SARA Title III, Section 313:  
Diphenylmethanediisocyanate: 9016-87-9, >= 50 - < 70 %  
4,4'-methylenediphenyl diisocyanate: 101-68-8 >= 30 - < 50 %

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61): 4,4'-methylenediphenyl diisocyanate: 101-68-8

**HMIS Rating**

Health \* 2

Flammability 1

Physical hazard Personal protection 0

**NFPA Rating**

Health hazard 2

Fire hazard 1

Reactivity hazard - Special hazard 0

**SECTION 16: Other information**

DATE: December 11, 2025 REVISION 1

**Further information/disclaimer**

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**Preparation information**

PREPARED BY: Product Safety Department, Profoam Corporation