



Safety Data Sheet

Issue Date: 01-Nov-2010

Revision Date: 24-Nov-2017

Version 1

1. IDENTIFICATION

Product Identifier

Product Name Froth Pak-Part A

Other means of identification

SDS # NAP00003A

UN/ID No UN1950

Recommended use of the chemical and restrictions on use

Recommended Use Used for kitchen and bath refinishing.

Details of the supplier of the safety data sheet

Manufacturer Address

North America Polymer Company, Ltd.
7315 Hamlin Ave
Skokie, IL 60076 USA

Emergency Telephone Number

Company Phone Number 800-888-1081 / 847-779-6464
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Brown

Physical State Aerosol

Odor Musty

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Gases Under Pressure	Compressed Gas

Signal Word

Danger

Hazard Statements

Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
Suspected of causing cancer
May cause respiratory irritation. May cause drowsiness or dizziness
May cause damage to organs through prolonged or repeated exposure
Contains gas under pressure; may explode if heated

**Precautionary Statements - Prevention**

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing should not be allowed out of the workplace
Do not breathe dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash it before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Diphenylmethane, Diisocyanate, isomers, and homologues	9016-87-9	60-100
4,4'-Methylenediphenyl diisocyanate	101-68-8	30-60
1,1,1,2-Tetrafluoroethane	811-97-2	5-10

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Note: CAS 101-68-8 is an MDI isomer that is part of CAS 9016-87-9.

4. FIRST-AID MEASURES

First Aid Measures

- Eye Contact** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.
- Skin Contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation occurs. An MDI skin decontamination study demonstrated that cleaning very soon after exposure was important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.
- Inhalation** Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.
- Ingestion** If swallowed, do not induce vomiting except at the direction of medical personnel. Immediate medical attention is required.
- Self-Protection of the First Aider** Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms and effects

- Symptoms** Causes eye irritation. Causes skin irritation. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness.

Indication of any immediate medical attention and special treatment needed**Notes to Physician**

Maintain adequate ventilation and oxygenation of the patient. May cause respiratory sensitization or asthma-like symptoms. Bronchodilators, expectorants and antitussives may be of help. Exposure may increase "myocardial irritability". Do not administer sympathomimetic drugs such as epinephrine unless absolutely necessary. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. If you are sensitized to diisocyanates, consult your physician regarding working with other respiratory irritants or sensitizers. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Medical Conditions Aggravated by Exposure: Excessive exposure may aggravate preexisting asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Large Fire

Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Water is not recommended, but may be applied in large quantities as a fine spray when other extinguishing agents are not available. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Use water spray to cool fire-exposed containers and fire-affected zone until fire is out.

Unsuitable Extinguishing Media Water.**Specific Hazards Arising from the Chemical**

Product reacts with water. Reaction may produce heat and /or gases. This reaction may be violent. Container may rupture from gas generation in a fire situation. Vaporizes quickly at room temperature. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Dense smoke is emitted when burned without sufficient oxygen. Contents under pressure. Avoid temperatures above 41°C (106°F). Avoid temperatures below 20°C (68°F).

Hazardous Combustion Products During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Nitrogen oxides. Isocyanates. Hydrogen fluoride. Hydrogen cyanide. Carbon monoxide. Carbon dioxide.

Protective equipment and precautions for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes helmet, coat, trousers, boots and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

6. ACCIDENTAL RELEASE MEASURES

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

Isolate area. Keep personnel out of low areas. Keep up wind of spill. Ventilate area of leak or spill. Keep unnecessary and unprotected personnel from entering the area. If available, use foam to smother or suppress. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. See Section 10 for more specific information regarding incompatible materials.

Environmental Precautions Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so. Absorb with materials such as: sawdust, Vermiculite, Dirt, Sand, Clay, Cob grit / Milsorb. Do NOT use absorbent materials such as: Cement powder (Note: may generate heat).

Methods for Clean-Up Collect in suitable and properly labeled open containers. Do not place in sealed containers. Suitable containers include: Metal drums. Polylined fiber pacs. Wash the spill site with large quantities of water. Attempt to neutralize by adding suitable decontaminant solution: Formulation 1: sodium carbonate 5-10%; liquid detergent 0.2-2%; water to make up to 100%. If ammonia is used, use good ventilation to prevent vapor exposure. Contact Dow for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breath vapors. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated contact with skin. Use with adequate ventilation. Wash thoroughly after handling. Keep container tightly closed. Contents under pressure. Do not puncture or incinerate container. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Do not enter confined spaces unless adequately ventilated. See Section 8, EXPOSURE and PERSONAL PROTECTION for specific personal protective equipment required.

Conditions for safe storage, including any incompatibilities

Storage Conditions Protect from sunlight. Do not store product contaminated with water to prevent potential hazardous reaction. Store away from incompatible materials. Store locked up. Contents under pressure. Avoid temperatures above 41°C (106°F). Avoid temperatures below 20°C (68°F). Storage Period: 6 months, Storage Temperature: 15-27°C. Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials Avoid contact with: Acids, Alcohols, Amines, Ammonia, Metal compounds and strong oxidizers. Diisocyanates react with many materials and the rate of reaction increases with temperature, as well as increased contact; these reactions can become violent. Contact is increased by stirring or if the other material mixes with the diisocyanates. Diisocyanates are not soluble in water and sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat. Avoid unintended contact with polyols and isocyanates, which generate heat.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
4,4'-Methylenediphenyl diisocyanate 101-68-8	TWA: 0.005 ppm	(vacated) Ceiling: 0.02 ppm regulated under Methylene bisphenyl isocyanate (vacated) Ceiling: 0.2 mg/m ³ regulated under Methylene bisphenyl isocyanate Ceiling: 0.02 ppm Ceiling: 0.2 mg/m ³	IDLH: 75 mg/m ³ Ceiling: 0.020 ppm 10 min Ceiling: 0.2 mg/m ³ 10 min TWA: 0.005 ppm TWA: 0.05 mg/m ³

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. Eye wash fountain should be located in immediate work area.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear approved safety goggles.

Skin and Body Protection SKIN: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly
 HAND: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber, Polyethylene, Chlorinated polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Viton. Neoprene. Natural rubber ("latex"). Polyvinyl chloride ("PVC" or "Vinyl"). Nitrile/butadiene rubber ("nitrile" or "NBR"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. When respiratory protection is required, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply. LETHAL concentrations may exist in areas with poor ventilation.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Do not consume or store food in the work area. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Contaminated work clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Aerosol	Odor	Musty
Appearance	Brown	Odor Threshold	Not determined
Color	Brown		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not applicable	
Melting Point/Freezing Point	No test data available	
Boiling Point/Boiling Range	No test data available	
Flash Point	Not applicable (Gas)	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	225 psi @54°C Container is under pressure	

Vapor Density	No test data available
Specific Gravity	1.02-1.04 25°C/25°C ASTM D891
Water Solubility	Insoluble in water , Reacts with water (evolution of CO2)
Solubility in other solvents	Not determined
Partition Coefficient	Not determined
Auto-ignition Temperature	No test data available
Decomposition Temperature	Not determined
Kinematic Viscosity	Not determined
Dynamic Viscosity	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined

10. STABILITY AND REACTIVITY

Reactivity

Reaction with water will generate carbon dioxide and heat.

Chemical Stability

Stable under normal conditions. See Storage, Section 7.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization Polymerization can occur.

Conditions to Avoid

Avoid temperatures above 41°C (106°F). Avoid temperatures below 20° (68°F). Elevated temperatures can cause container to vent and/or rupture. Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid. Avoid moisture. Material reacts slowly with water, releasing carbon dioxide, which can cause pressure build-up and rupture of closed containers. Elevated temperatures accelerate this reaction.

Incompatible Materials

Avoid contact with: Acids, Alcohols, Amines, Ammonia, Metal compounds and strong oxidizers. Diisocyanates react with many materials and the rate of reaction increases with temperature, as well as increased contact; these reactions can become violent. Contact is increased by stirring or if the other material mixes with the diisocyanates. Diisocyanates are not soluble in water and sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat. Avoid unintended contact with polyols and isocyanates, which generate heat.

Hazardous Decomposition Products

Decomposition products depend upon temperature, air supply and the presence of other materials. Toxic gases are released during decomposition.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Causes severe eye irritation.
Skin Contact	Causes skin irritation. May cause an allergic skin reaction.
Inhalation	Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Ingestion	Causes skin irritation.

Component Information**Information on physical, chemical and toxicological effects**

Symptoms Causes eye irritation. Causes skin irritation. MAY CAUSE ALLERGIC SKIN REACTION. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Animal studies have shown that skin contact with Isocyanates may play a role in respiratory sensitization.

Germ cell mutagenicity Genetic toxicity data on MDI are inconclusive. MDI was weakly positive in some in vitro studies; other in vitro studies were negative. Animal mutagenicity studies were predominantly negative.

Carcinogenicity Not classifiable as a human carcinogen.

Developmental toxicity In laboratory animals, MDI/ polymeric MDI did not cause birth defects; other fetal effects occurred only at high doses which were toxic to the mother. Based on information for component(s): 1,1,1,3-Tetrafluoroethane. Has been toxic to the fetus in lab animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

STOT - single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Chronic toxicity Lung tumors have been observed in laboratory animals exposed to respirable aerosol droplets of MDI/Polymeric MDI (6 mg/m³) for their lifetime. Tumors occurred concurrently with respiratory irritation and lung injury. Current exposure guidelines are expected to protect against these effects reported for MDI.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50 > 100 mg/L in the most sensitive species tested).

Persistence/Degradability

In the aquatic and terrestrial environment, material reacts with water forming predominantly insoluble polyureas which appear to be stable. In the atmospheric environment, material is expected to have a short tropospheric half-life, based on calculations and by analogy with related diisocyanates.

Bioaccumulation

The product has low potential for bioaccumulation.

Mobility

In aquatic and terrestrial environment, movement is expected to be limited by its reaction with water forming predominantly insoluble polyureas

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. DOW HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN SDS SECTION: Composition information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed and permitted incinerator or other thermal destruction device. As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Customer Information Group 1-800-258-2436 or 1-989-832-1556 (U.S.), or 1-800-331-6451 (Canada) for further details.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No	UN1950
Proper Shipping Name	Aerosols
Hazard Class	2.2
Special Provisions	Based on package size, product may be eligible for limited quantity exception

IATA

UN/ID No	UN1950
Proper Shipping Name	Aerosols, non-flammable
Hazard Class	2.2
Special Provisions	Based on package size, product may be eligible for limited quantity exception

IMDG

UN/ID No	UN1950
Proper Shipping Name	Aerosols, non-flammable
Hazard Class	2.2
Special Provisions	Based on package size, product may be eligible for limited quantity exception

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Diphenylmethane, Diisocyanate, isomers, and homologues	Present	X				Present	X	Present	X	X
4,4'-Methylenediphenyl diisocyanate	Present	X		Present		Present	X	Present	X	X
1,1,1,2-Tetrafluoroethane	Present	X		Present		Present	X	Present	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
4,4'-Methylenediphenyl diisocyanate 101-68-8	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	No

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Diphenylmethane, Diisocyanate, isomers, and homologues - 9016-87-9	9016-87-9	65	1.0
4,4'-Methylenediphenyl diisocyanate - 101-68-8	101-68-8	30	1.0

US State Regulations

U.S. State Right-to-Know Regulations

Not determined

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Diphenylmethane, Diisocyanate, isomers, and homologues 9016-87-9	X		
4,4'-Methylenediphenyl diisocyanate 101-68-8	X	X	X

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards Not determined	Flammability Not determined	Instability Not determined	Special Hazards Not determined
<u>HMIS</u>	Health Hazards Not determined	Flammability Not determined	Physical Hazards Not determined	Personal Protection Not determined

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet