

## SAFETY DATA SHEET

### SECTION 1: IDENTIFICATION

#### Product identifier

Trade name: **IntelliPack SmartFOAM™ A**  
Synonym(s): IntelliPack foam-in-place packaging component A  
Preparation/Revision date: 1 October 2015

#### Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Protective packaging – Foam component A  
Uses advised against: None known

#### Details of the supplier of the safety data sheet

##### Manufacturer / Supplier

Company name: Pregis Innovative Packaging, Inc.  
Address: 1650 Lake Cook Road, Suite 400  
Deerfield, IL 60015  
Customer service: 877-692-6163

#### Emergency telephone number

For product and additional safety information:  
e-Mail: [gallen@pregis.com](mailto:gallen@pregis.com)

**24-Hour Emergency Contact:**  
Chemtrec: (800) 424-9300

### SECTION 2: HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

##### Classification according to the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification: Acute Inhalation – Category 4  
Serious Eye Damage/Eye Irritation – Category 2B  
Skin Corrosion/Irritation – Category 2  
Skin Sensitization - Category 1B  
Respiratory Sensitization - Category 1

### SECTION 2: HAZARDS IDENTIFICATION (CONT'D)

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STOT Single Exposure - Category 3

STOT Repeated Exposure - Category 2

### Label elements



Hazard pictogram:

Signal word:

Hazard statement:

Danger

Harmful if inhaled

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 damage to organs (Olfactory organs) through prolonged or repeated exposure (inhalation).

Precautionary statements:

- Prevention:

Do not breathe dust/gas/mist/vapors.

In case of inadequate ventilation: wear respiratory protection.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

Wash hands thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

- Response:

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Call a poison center or doctor/physician if you feel unwell.

Get medical advice/attention if you feel unwell.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

If on skin: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

- Storage:

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

- Disposal:

Dispose of in accordance with local/regional/national/international regulations.

### SECTION 2: HAZARDS IDENTIFICATION (CONT'D)

Supplemental label information: None

**IntelliPack SmartFOAM™ A**

Preparation Date: 1 October 2015

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**Hazards Not Otherwise Classified**      None known

### Hazard summary

Physical hazards:	Not classified for physical hazards.
Health hazards:	Harmful if inhaled. May causes eye, skin and respiratory irritation. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause damage to organs through prolonged or repeated exposure by inhalation.
Environmental hazards:	Not classified for environmental hazards.
Main symptoms:	Harmful if inhaled. May causes eye, skin and respiratory irritation. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause damage to organs through prolonged or repeated exposure by inhalation.

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### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Percent	CAS No.	Notes
P-MDI	≥50 - <75	9016-87-9	#
Diphenylmethane-4,4'-diisocyanate (MDI)	≥25 - <50	101-68-8	
1,3-Diazetidone-2,4-dione, 1,3-bis[4-[(4-isocyanatophenyl)methyl]phenyl]-	≥1 - <3	17589-24-1	
Methylenediphenyl diisocyanate	≥ 3 - <7	26447-40-5	#
Isocyanic acid, polymethylenepolyphenylene ester, polymer with.alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl)	≥1 - <3	57636-09-6	#

# - Substance has Occupational Exposure Limits

### SECTION 4: FIRST AID MEASURES

#### General Information

Show this Safety Data Sheet to the medical professional in attendance. If symptoms occur, follow first aid measures as appropriate. First aid providers should avoid direct contact with this chemical. Wear chemical protective gloves, if necessary. Take proper precautions to ensure your own safety before attempting rescue.

#### Description of first aid measures

Inhalation:

Remove victim to fresh air. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary edema can be delayed up to 48 hours after exposure. Immediately obtain medical advice and transport victim to an emergency care facility.

Skin contact:

Remove contaminated clothing, shoes and leather goods. Wash thoroughly with soap and water for 15-20 minutes. Immediately obtain medical attention. Wash contaminated clothing before reuse.

Eye contact:

Rinse immediately with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation develops, get medical attention.

Ingestion:

Never give anything by mouth to an unconscious or convulsing person. DO NOT induce vomiting. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Immediately obtain medical attention.

Notes to Physician:

Treat Symptomatically

**SECTION 4: FIRST AID MEASURES (CONT'D)**

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

Harmful if inhaled. May cause eye, skin and respiratory irritation. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause damage to organs through prolonged or repeated exposure by inhalation.

**Indication of any immediate medical attention and special treatment needed**

None known.

**SECTION 5: FIRE FIGHTING MEASURES**

**General fire hazards**

This material can burn if heated. Closed container may forcibly rupture under extreme heat. Use cold water spray to cool fire exposed containers to minimize the risk of rupture. Large fires can be extinguished with large volumes of water applied at a safe distance.

**Extinguishing Media**

Suitable extinguishing media:

Water, Foam, Dry Chemical, Carbon Dioxide. Use extinguishing media appropriate for surrounding material.

Unsuitable extinguishing media:

Exercise caution when using water; water contamination of product will generate CO<sub>2</sub> gas.

**Special hazards arising from the substance or mixture**

During a fire products of combustion may include carbon monoxide, carbon dioxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates dense smoke and irritating or toxic fumes. Reacts vigorously with water above 50°C. Closed containers may rupture violently when heated. Polymeric MDI decomposes rapidly above 204°C.

**Advice for firefighters**

Special protective equipment for firefighters:

Firefighters should use self-contained breathing apparatus and wear full protective equipment. Personnel / bystanders should be kept upwind of fire.

Special firefighting procedures:

When using water care must be taken since the reaction between water and hot Polymeric MDI can be vigorous.

Special remarks on fire hazards:

This material can burn if heated.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Use personal protective equipment as recommended in Section 8. Keep unprotected persons away. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Wash thoroughly after handling.

**Methods and materials for containing and cleaning up**

Contain the spill to prevent spread into drains, sewers, water supplies to soil. Cover spill area with suitable absorbent material. If control of isocyanate vapor is required, cover the spilled material with protein foam. Shovel into open-top drums or plastic bags for further decontamination, if necessary. Do not seal drums or containers. Wash area with Decontamination solution of 90% water, 8% concentrated ammonia, 2% detergent. Allow material to stand for 48 hours to let carbon dioxide gas escape.

### SECTION 7: HANDLING AND STORAGE

**Precautions for safe handling**

Use personal protective equipment as recommended in Section 8. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapors/mists. Avoid aerosol formation. Do not use near welding operations, flames or hot surfaces because of the risk of formation of toxic hydrogen cyanide and nitrogen oxides. Wear respiratory protection when spraying. Do not reseal containers if contamination of Polymeric MDI is suspected. Keep containers closed when not in use. Assume that empty containers contain residues which are hazardous. Avoid release to the environment.

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

Store in a dry, well-ventilated area, out of direct sunlight and away from heat, sources of ignition and incompatible materials. Storage temperature is 32 - 110°F. Keep contents away from moisture; Polymeric MDI reacts with water producing CO<sub>2</sub> gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Do not re-seal contaminated containers. Store product in its original container.

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

**United States. Occupational Exposure Limits:**

Component	CAS No.	Type	Value	Form
Diphenylmethane-4,4'-diisocyanate (MDI)	9016-87-9	OSHA-PEL	0.020 ppm 0.02 mg/m <sup>3</sup>	N/A
P-MDI	26447-40-5	OSHA-PEL	0.020 ppm 0.02 mg/m <sup>3</sup>	N/A
Isocyanic acid, polymethylenepolyphenylene ester (P-MDI)	57636-09-6	OSHA-PEL	0.020 ppm 0.02 mg/m <sup>3</sup>	N/A

**Appropriate engineering controls**

Observe occupational exposure limits. Local exhaust should be used to maintain levels below the exposure limits. If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection. Have a safety shower and eye-wash fountain readily available in the immediate work area.

**Individual Protective Measures**

**General Information:**

Workers whose clothing has been contaminated by product should change into clean clothing promptly. Discard all contaminated leather clothing articles (e.g. belts, watchbands, shoes). Do not eat, smoke or drink in workplaces where this product is processed by machining operations. Wash hands carefully before eating, drinking, smoking or using the toilet.

**Eye/face protection:**

Wear safety goggles. Wear face shield if splashing hazard exists.

**Skin protection:**

Wear chemical protective gloves, coveralls, boots and/or other resistant protective clothing to prevent skin exposure. Suitable materials may include, chloroprene rubber (Neoprene), nitrile rubber (Buna N), chlorinated polyethylene, polyvinylchloride (Pylox), butyl rubber, depending upon conditions of use. Evaluate resistance under conditions of use and maintain protective clothing carefully.

**Respiratory protection:**

When atmospheric levels may exceed the occupational exposure limit (PEL or TLV) NIOSH-certified air-purifying respirators equipped with an organic vapor sorbent and particulate filter can be used as long as appropriate precautions and change out schedules are in place. For emergency or non-routine, high exposure situations, including confined space entry, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

**Thermal hazards:**

None known

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### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

<b>Form</b>	Liquid	<b>Explosive properties</b>	No data available
<b>Color</b>	Dark amber	<b>Explosive limit</b>	No data available
<b>Odor</b>	Aromatic	<b>Vapor pressure</b>	0.00016 mmHg @ 20°C
<b>Odor threshold</b>	No data available	<b>Vapor density</b>	Not applicable
<b>pH</b>	Not applicable	<b>Evaporation rate</b>	No data available
<b>Melting/freezing point</b>	3 °C	<b>Relative density</b>	1.22 @ 25°C
<b>Boiling point, initial boiling point and boiling range</b>	200 °C	<b>Partition coefficient (n-octanol/water)</b>	Not applicable
<b>Flash point</b>	220 °C	<b>Solubility (water)</b>	Reacts with water
<b>Auto-ignition temperature</b>	>250 °C	<b>Decomposition temperature</b>	No data available
<b>Flammability (solid, gas)</b>	Not applicable	<b>Bulk density</b>	10.17 lb/g @ 25 °C
<b>Flammability limit-lower%</b>	No data available	<b>Viscosity</b>	200mPa/s @ 20 °C
<b>Flammability limit-upper%</b>	No data available	<b>VOC (weight %)</b>	No data available
<b>Oxidizing properties</b>	Not applicable	<b>Percent volatile</b>	No data available

### SECTION 10: STABILITY AND REACTIVITY

#### Reactivity

Product reacts with water, amines, alcohols, acids and bases.

#### Chemical stability

Stable under normal conditions.

Isocyanates are very reactive compounds and are especially highly reactive toward a large number of compounds with active hydrogens, particularly at high temperatures and in the presence of catalysts. May attack and make brittle many plastic and rubber materials.

#### Possibility of hazardous reactions

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

#### Conditions to avoid

Avoid moisture.

#### Incompatible materials

Water, amines, alcohols, acids and bases.



**SECTION 10: STABILITY AND REACTIVITY (CONT'D)**

**Hazardous decompositions products**

By thermal decomposition and combustion, product may generate carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, dense smoke and irritating or toxic fumes. 4,4'-Methylene dianiline can be formed by reaction of MDI with water.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**General information on likely routes of exposure**

Ingestion:

Swallowing may result in irritation and corrosion of the mouth, throat and digestive tract.

Inhalation:

Short-term inhalation exposure to isocyanates can cause respiratory and mucous membrane irritation. Symptoms include eye and nose irritation, dry or sore throat, runny nose, shortness of breath, wheezing and laryngitis. Coughing with chest pain or tightness may also occur, frequently at night. These symptoms may occur during exposure or may be delayed several hours. Some people may become sensitized to MDI. High aerosol concentrations could cause inflammation of the lung tissue (chemical pneumonitis), chemical bronchitis with severe asthma-like wheezing, severe coughing spasms and accumulation of fluid in the lungs (pulmonary edema), which could prove fatal. Symptoms of pulmonary edema may not appear until several hours after exposure and are aggravated by physical exertion.

Skin contact:

Polymeric MDI can cause mild irritation. Isocyanates, in general, can cause skin discolouration (staining) and hardening of the skin after repeated exposures. Skin sensitization, resulting in dermatitis, may occur in some individuals.

Eye contact:

Contact with Polymeric MDI liquid, mist and aerosols may cause mild irritation with tearing and discomfort.

Symptoms:

May cause eye, skin and respiratory irritation. May cause damage to organs through prolonged or repeated inhalation. May cause allergy or asthma symptoms or breathing difficulties. May cause an allergic skin reaction. Harmful if inhaled.

**Information on toxicological effects**

Acute Toxicity:

No data were identified for the product as a whole. Data are for constituents:

**SECTION 11: TOXICOLOGICAL INFORMATION (CONT'D)**

Ingredient name	Result	Species	Dose	Exposure
Diphenylmethane-4,4'-diisocyanate (MDI)	LD <sub>50</sub>	Rat	>2000 mg/kg	Oral
	LC <sub>50</sub>	Rabbit	>9400 mg/kg	Dermal
	LD <sub>50</sub>	Rat	20 mg/L	Inhalation (aerosol)

Serious Eye Damage/Irritation:

The primary competes of this product are known to cause eye irritation. Diphenylmethane-4,4'-diisocyanate (MDI) was found to be irritating to the eyes of rabbits.

Skin corrosion/Irritation:

The primary competes of this product are known to cause skin irritation. Diphenylmethane-4,4'-diisocyanate (MDI) was found to be irritating to the skin of rabbits.

Respiratory/Skin Sensitization:

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Isocyanates are known to cause skin and respiratory sensitization in humans. Animal tests have indicated that respiratory sensitization can result from skin contact with diisocyanates.

Germ Cell Mutagenicity:

Diphenylmethane-4,4'-diisocyanate (MDI) was mutagenic in various bacterial test systems; however, these results could not be confirmed in tests with mammals.

Carcinogenicity:

A carcinogenic potential cannot be excluded after prolonged exposure to severely irritating concentrations. These effects are not relevant to humans at occupational levels of exposure. The International Agency for Research on Cancer (IARC) has concluded that Diphenylmethane-4,4'-diisocyanate (MDI), P-MDI and Methylenediphenyl diisocyanate are not classifiable as to carcinogenicity to humans (Group 3).

Reproductive Toxicity:

Repeated inhalative uptake of the substance did not cause damage to the reproductive organs.

Developmental Effects:

The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses that were toxic to the parental animals.

STOT – Single Exposure:

May cause respiratory irritation.

STOT – Repeated Exposure:

May cause damage to organs through prolonged or repeated exposure by inhalation.

Aspiration Hazard:

No data were identified for this product or its constituents. No aspiration hazard expected.

**SECTION 11: TOXICOLOGICAL INFORMATION (CONT'D)**

**Conclusion/Summary**

May cause eye, skin and respiratory irritation. May cause damage to organs through prolonged or repeated inhalation. May cause allergy or asthma symptoms or breathing difficulties. May cause an allergic skin reaction. Harmful if inhaled.

**SECTION 12: ECOLOGICAL INFORMATION**

**Ecotoxicity**

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. Based on long-term (chronic) toxicity study data, the product is very likely not harmful to aquatic organisms. The product may hydrolyse. The test result maybe partially due to degradation products. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Result	Species	Dose	Exposure
LC <sub>0</sub>	<i>Brachydanio rerio</i>	>1000 mg/L	96 hour
EC <sub>50</sub>	<i>Daphnia magna</i>	>1000 mg/L	24 hour
EC <sub>0</sub>	<i>Scenedesmus subspicatus</i>	>100 mg/L	72 hour

**Persistence and degradability**

Poorly biodegradable. In contact with water the substance will hydrolyse slowly.

**Bioaccumulative potential**

Significant accumulation in organisms is not to be expected.

**Mobility**

Adsorption to solid soil phase is not expected.

**Results of PBT and vPvB assessment**

No data were identified for this product.

**Other adverse effects**

None known

**Conclusion/Summary**

Not classified for environmental hazards.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

Residual waste:	Dispose of in accordance with applicable Federal, State and Local regulations.
Contaminated packaging:	Steel drums must be emptied and can be sent to a licensed drum reconditioner for reuse, a scrap metal dealer or an approved landfill. Do not attempt to refill or clean containers since residue is difficult to remove. Under no circumstances should empty drums be burned or cut open with gas or electric torch as toxic decomposition products may be liberated. Do not reuse empty containers.
Disposal methods/information:	Dispose in accordance with applicable Federal, State and Local regulations. Incinerate or dispose if in a licensed facility.

**SECTION 14: TRANSPORT INFORMATION**

**Classification in accordance with U.S. DOT:**

<b>UN Number</b>	Not applicable, not regulated as hazardous for transport.*
<b>UN proper shipping name</b>	Not applicable, not regulated as hazardous for transport.*
<b>Transport hazard class(es)</b>	Not applicable, not regulated as hazardous for transport.*
<b>Packing group</b>	Not applicable, not regulated as hazardous for transport.*
<b>Environmental hazards</b>	Not applicable, not regulated as hazardous for transport.*
<b>Special precautions for user</b>	None known
<b>Transport in bulk according to Annex II MARPOL73/78 and the IBC Code</b>	Not applicable, not regulated as hazardous for transport.

\* This product is regulated if the amount in a single receptacle exceeds the Reportable Quantity.

**The transport regulation may vary based on the country of use. Check for the appropriate regulations in the country of transport or usage of this product.**

**SECTION 15: REGULATORY INFORMATION**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**USA Federal Regulations**

29 CFR 1910.1200 Hazard Communication Standard (HCS):

Hazardous

TSCA - U.S. Inventory:

Exempt/Compliant

SARA Title III – Section 302, Extremely Hazardous Substances (EHS):

None Known

CERCLA - Hazardous substances:

Diphenylmethane-4,4'-diisocyanate(MDI) CAS: 101-68-8, P-MDI CAS: 9016-87-9 – 5000 pounds RQ

SARA Title III – 311/312, Hazard Classes:

Fire / Flammability

No

Reactivity

No

Release of Pressure

No

Acute Health Hazard

Yes

Chronic Health Hazard

Yes

SARA Title III – Section 313:

Diphenylmethane-4,4'-diisocyanate(MDI) CAS: 101-68-8, P-MDI CAS: 9016-87-9

**USA State Regulations**

Massachusetts – Right-to-Know:

Diphenylmethane-4,4'-diisocyanate (MDI) CAS: 101-68-8

Pennsylvania – Right-to-Know:

Diphenylmethane-4,4'-diisocyanate (MDI) CAS: 101-68-8, P-MDI CAS: 9016-87-9

New Jersey – Right-to-Know:

Diphenylmethane-4,4'-diisocyanate (MDI) CAS: 101-68-8, P-MDI CAS: 9016-87-9, Methylenediphenyl diisocyanate CAS: 26447-40-5

**Other Regulations**

All shipping mailer packaging and packaging components, manufactured in the United States by Pregis Innovative Packaging, Inc., comply with the several United States' enacted provisions of the Coalition of Northeast Governors ("CONEG") legislative model for the reduction of toxics in packaging and the California Toxics in Packaging Prevention Act. Pregis Innovative Packaging, Inc.'s manufacturing practices prohibit the intentional introduction of cadmium (Cd), hexavalent chromium (Cr +6), lead (Pb), or mercury (Hg) into its products' formulations. Further, the cumulative total of all such metals' incidental concentrations does not exceed 100 parts per million (ppm).

**SECTION 16: OTHER INFORMATION**

**List of abbreviations**

ACGIH	American Conference of Industrial Hygienists
CFR	Code of Federal Regulations
DOT	Department of Transportation
IARC	International Agency for Research on Cancer
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
MARPOL	International Convention for the Prevention of Pollution from Ships
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible Exposure Limit
SARA	Superfund Amendments and Reauthorization Act
SDS	Safety Data Sheet
TSCA	Toxic Substances Control Act
TWA	Time Weighted Average
vPvB	Very Persistent and Very Bioaccumulative

**SDS Revisions**

SDS revised on 1 October 2015.

**Disclaimer**

Information provided by sources external to our company and set forth herein is offered in good faith as accurate, but without guarantee. Safety precautions contained herein cannot anticipate all individual and unique situations. Conditions of use and suitability of the product for particular uses are beyond our control. All risks of use of the product are, therefore, assumed by the user and we expressly disclaim all warranties of every kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product. Nothing herein is intended as recommendation for uses which infringe valid patents or as extension of license under valid patents. Appropriate warnings and safe handling procedures should be provided to users.