

INNOVATIONS THAT
IMPROVE.TM

Handi-brand[®] Product Stewardship

GUIDELINES FOR SAFE USE, STORAGE AND HANDLING FOR
LOW PRESSURE POLYURETHANE FOAM PRODUCTS

As energy efficiency continues to grow in popularity, so does the use and knowledge of low pressure polyurethane foams. Handi-brand low pressure polyurethane foams provide the best and easiest solutions in stopping unwanted air infiltration. Handi-brand low pressure polyurethane foam products are for professional use only and should always be used under the proper health and safety conditions. Please take a moment to review the proper storage, use and application of Handi-Foam[®], Handi-Stick[®] and Handi-Flow[®] low pressure polyurethane foams.

All of the ICP Adhesives and Sealants' products are low pressure products meaning the dispensed pressure is below 250 psi. High pressure foams are typically dispensed at 1,000 psi and above.

For more information about health and safety of high pressure foam, visit www.spraypolyurethane.org.

For more information about the ICP Adhesives & Sealants' product lines, visit www.icpadhesives.com.

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This document contains ICP Adhesives and Sealants' recommendations for the safe use and handling of our low pressure spray polyurethane products. It is intended to provide general information to persons who may handle or apply low pressure spray polyurethane foam chemicals. It is not intended to serve as a substitute for in-depth training or specific handling or application requirements, nor is it designed or intended to define or create legal rights or obligations. It is not a prescriptive guide. All persons involved in handling and applying spray polyurethane foam chemicals should independently ascertain that their actions are in compliance with current federal, state and local laws and regulations and should consult with their employer concerning such matters.

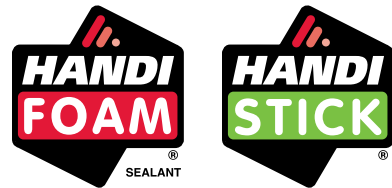


Scan here to be
directed to the Health
& Safety page.

Section 1

Safe Handling and Use of Handi-brand® Low Pressure Polyurethane Foams and Sealants

Handi-Foam®, Handi-Stick® and Handi-Flow® products are for professional use only. Homeowners interested in air sealing or insulating using the ICP Adhesives and Sealants' product lines can call ICP at 800.321.5585 to be put in contact with a professional contractor. Children should NEVER use these products.

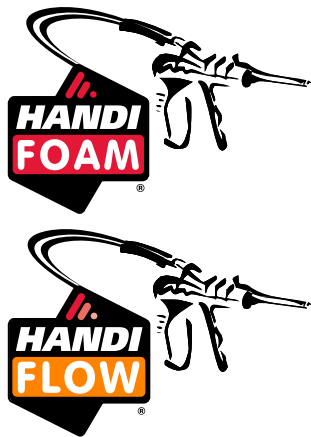


- **Low Pressure One-Component Polyurethane Foam Sealants & Adhesives (OCF) (Handi-Foam Sealants and Handi-Stick Adhesives)**

- o Low pressure one-component polyurethane foam sealants and adhesives are moisture cured products dispensed using a straw applicator or dispensing unit.
- o For use in a bead type application for air sealing or adhering.
- o Use only in a well ventilated area. Avoid breathing vapors. Wear protective glasses with side shields or goggles, nitrile gloves and clothing that protects against dermal exposure.
- o Uncured foam may be cleaned using Handi-Cleaner®.

- **Low Pressure Polyurethane Foams [Handi-Foam Spray Polyurethane Foams (SPF) and Handi-Flow Pour-in-Place Foams (PIP)]**

- o Low pressure polyurethane foams are chemically cured products dispensed using a patented Handi-Gun® or Handi-Gun II™ dispensing unit.
- o For use in coating applications for insulation or bead applications for air sealing.
- o Use only in a well ventilated area with a National Institute for Occupational Safety and Health (NIOSH)-approved air purifying respirator. Wear protective glasses with side shields or goggles, nitrile gloves, and clothing that protects against dermal exposure. (See section 2)
- o When using Handi-brand low pressure polyurethane foam products, ICP recommends a 1 hour re-entry time. Please consult ICP's Product Management Department for details (800.321.5585).
- o For use in enclosed spaces without mechanical ventilation, ICP recommends following all of our low pressure polyurethane foam PPE requirements including the use of a powered air purifying respirator (PAPR). A half mask air purifying respirator may be appropriate if mechanical ventilation is added.
- o See ventilation guidance. (See Section 7, page 7)



First Aid

- In any first aid case, CONSULT A PHYSICIAN. EYES: Flush with water for at least 15 minutes. SKIN: Remove contaminated clothing. Wash skin with plenty of soap and water. Cured foam must be removed mechanically. INHALATION: Move to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. INGESTION: Drink large quantities of water. Do NOT induce vomiting. Contact a physician immediately in any first aid situation.
- See Section 4: First Aid Measures are available on ICP's product Safety Data Sheets which can be located at www.icpadhesives.com for more information.

For more information about the health and safety considerations when using spray polyurethane foams and for training on low pressure SPF, visit www.spraypolyurethane.org or consult ICP's product Safety Data Sheets available at www.icpadhesives.com. See Section 8, page 10 for links and QR codes.

Section 2



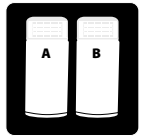

















Personal Protective Equipment (PPE) for Low Pressure Polyurethane Foams

- Handi-Foam® and Handi-Flow® low pressure spray and pour-in-place polyurethane foams should always be used in conjunction with a certified respiratory program in addition to safety glasses with side shields or goggles, nitrile gloves and clothing that protects against dermal exposure. Respirators should be NIOSH-approved and medical evaluation, fit testing and training should be provided before use.
- There are many respirator options and the correct respirator may be determined based on the jobsite conditions (i.e. ventilation) or the applicator preference. Options include:
 - o Half-face respirators can be used for protection against most vapors, acid gases, dust or welding fumes. Cartridges/filters must match contaminant(s) and should be changed periodically.
 - o Full-face respirators are more protective than half-face respirators. They can also be used for protection against most vapors, acid gases, dust or welding fumes. The face-shield protects face and eyes from irritants and contaminants. Cartridges/filters must match contaminant(s) and should be changed periodically.
 - o Loose-fitting powered-air-purifying respirators (PAPR) offer breathing comfort from a battery-powered fan which pulls air through filters and circulates air throughout helmet/hood. They can be worn by most workers who have beards. Cartridges/filters must match contaminant(s) and should be changed periodically.
 - o For more respirator information, please visit www.osha.gov or call 800.321.OSHA.
- ICP recommends utilizing one of the following:
 - o NIOSH-approved negative pressure half mask respirator with organic vapor cartridges and particulate filters. (F65251 - Contractor Safety Kit includes 3M® 6000-Series NIOSH/MSHA respirator)
 - o NIOSH-approved PAPR (powered air purifying respirator) with an organic vapor cartridge. (example 3M® GVP-Series)
 - o Both respirator options (half mask and PAPR) require a medical evaluation prior to use (www.respexam.com). The half mask respirator requires a fit test prior to use. Refer to OSHA's Respiratory Protection standard (www.osha.gov, search 1910.134) for more information about creating the required respiratory program.
 - o See the American Chemistry Council's Guidance for Developing a Written Respiratory Program at www.polyurethane.americanchemistry.com/resources-and-document-library.
- For additional information, see Section 8, page 10 for links and QR codes.



Section 2

Personal Protective Equipment (PPE) for Low Pressure Polyurethane Foams


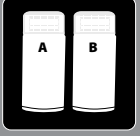

	Low Pressure One-Component Polyurethane Foam Sealants & Adhesives (OCF)	Low Pressure Spray Polyurethane Foam (SPF) and Pour-In-Place (PIP) Polyurethane Foam Kits	Low Pressure Refillable Spray Polyurethane Foam (SPF) and Pour-in-Place (PIP) Polyurethane Foam Systems
			
Routes of Exposure	Recommended PPE	Recommended PPE	Recommended PPE
EYES	Safety Glasses or Goggles  	Safety Glasses or Goggles  	Safety Glasses or Goggles  
SKIN	Covers Skin 	Covers Skin 	Covers Skin 
HANDS	Nitrile Gloves 	Nitrile Gloves 	Nitrile Gloves 
LUNGS	Avoid Breathing Vapors Provide Good Ventilation 	Respirator and/or Vapor Respirator OV/Pre-filter Provide Good Ventilation  	Respirator and/or Vapor Respirator OV/Pre-filter Provide Good Ventilation  

For additional information, see Section 8, page 10 for links and QR codes.

Section 3

Low Pressure vs. High Pressure Spray Polyurethane Foams

Key Differences of Low Pressure vs. High Pressure SPF

	LOW PRESSURE (LP)  POLYURETHANE FOAM DISPOSABLE KITS	LOW PRESSURE (LP)  REFILLABLE POLYURETHANE FOAM SYSTEMS	HIGH PRESSURE (HP)  SPRAY SYSTEMS
INTENDED USE	Air seal/insulate small to mid-size areas	Air seal/insulate small to mid-size areas	Insulate large surface areas
PRESSURE	Less than 250 psi	Less than 250 psi	1000-1300 psi (typically)
OUTPUT (FULL TRIGGER)	Up to 2–5 lbs. per min. Standard fan or cone nozzle	Up to 5–7 lbs. per min. Standard fan or cone nozzle	Up to 30 lbs. per min.
MIXER/HOUSING	Static mixer/nozzle	Static mixer/nozzle	Chamber mixing/spray gun
CONTAINER	Single use cylinders	Refillable tanks	55 gallon drums
HOSES	9–15 ft. (3–5 m) hoses	25–100 ft. (8–30 m) hoses 75–150 ft. (23–46 m) heated hoses	Transfer pump system Up to 400 ft. (122 m) heated hoses
PRODUCT TEMP. (RECOMMENDED USE)	70–85°F (21–29°C) Optimum product temperature for standard systems	70–85°F (21–29°C) Optimum product temperature for standard systems	120–150°F (49–65°C) Machine heater system

As seen on spraypolyurethane.org in the low pressure spray polyurethane foam health and safety training hosted by the Center for Polyurethane Industry (CPI) and American Chemistry Council (ACC).

For additional information, see Section 8, page 10 for links and QR codes.

Section 4

Low Pressure Product Storage

- Keep out of reach of children.
- Before first use of product, store in a dry area. Do not expose the kit, cans or tanks to open flame or temperatures above 90°F (32°C) or below 60°F (16°C). Condition tanks and cans for up to several days (depending on the size) to the recommended process (core) chemical temperature.
- After initial use of Handi-Foam® and Handi-Flow® low pressure polyurethane foam kits, close valves on kits and store at room temperature. Do not drain or remove hoses as they must remain under pressure. Remaining kit must be used within 30 days of opening. Flush fresh chemical through the hoses every seven days to prevent crystallization.
- Do not store above 90°F (32°C) or below 60°F (16°C).
- See Section 7: Handling and Storage on ICP product Safety Data Sheets available at www.icpadhesives.com for more information.

Section 5

Handi-brand® Product Disposal

1. DO NOT INCINERATE TANKS.
2. Dispense the foam into a waste container like a cardboard box or plastic bag. Depressurize the used cylinders using the dispensing unit with a new nozzle attached. Spray the foam until one of the components/cylinders no longer sprays chemical.
3. Remove the nozzle and then continue to depressurize by dispensing the chemicals into a waste container (a box lined with a plastic bag) that has adequate industrial liquid absorbing medium in the bottom. Dispense the residual chemicals until the pressure is down to a minimum or there are just large bubbles in the hose.
4. Close the cylinder valves completely, and then operate the dispensing unit again to empty and depressurize the hoses. Use a 9/16" wrench and remove the hoses from the cylinders. Use caution in case there is some residual chemical and/or pressure in the hoses.
5. Invert the cylinder and point away from face. Slowly open the cylinder over the waste container to catch any residual chemical.
6. Return the cylinder to an upright position. Shake the container; there should not be any sloshing of liquid. Make sure to leave valves OPEN-do not close.
7. **NOTE:** After dispensing if one cylinder has chemical left in it; treat as hazardous material.
8. DISPOSE OF EMPTY CYLINDERS ACCORDING TO APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS. CHECK WITH YOUR LOCAL WASTE DISPOSAL SERVICE FOR GUIDANCE.

See Section 13: Disposable Considerations on ICP's product Safety Data Sheets available at www.icpadhesives.com for more information.

Section 6

Handi-brand Product Support Documentation

SAFETY DATA SHEETS (SDS)

- Safety Data Sheets are available for all low pressure polyurethane foam, sealant and adhesive products offered by ICP Adhesives and Sealants, located on www.icpadhesives.com or by calling 800.321.5585.
- The Safety Data Sheet is the best source of information for product contents, health and safety information, product disposal, transportation information and product hazard information.
- Please be sure to read through the product operating instructions and SDS prior to use.

OPERATING INSTRUCTIONS

- Operating instructions for all Handi-brand products are available at www.icpadhesives.com or directly on or inside the product packaging. Please read all operating instructions prior to product use.

TECHNICAL DATA SHEET (TDS)

- Please read the Technical Data Sheets prior to product use.
- Technical Data Sheets for all of the Handi-brands are available on www.icpadhesives.com and include product information such as:
 - o Application Areas
 - o Product Properties
 - o Physical Properties
 - o Preparation and Usage Instructions
 - o Storage and Disposal Instructions
 - o Technical Data
 - o Approvals and Standards
 - o Temperature Guidelines

Section 7

Low Pressure Spray & Pour-In-Place Polyurethane Foam Ventilation Plan Guidelines for Weatherization and Air Sealing*

During the application of low pressure spray or pour-in-place polyurethane foam products, providing adequate ventilation is essential to having a healthy and safe work environment. Ventilating the area where the polyurethane foams are being applied will help control worker exposure to airborne contaminants. Read Safety Data Sheets, labels, product stewardship guidelines and operating instructions before use.

5 POINTS TO CONSIDER FOR ESTABLISHING A VENTILATION PLAN:

1. Examine the work zone.

- Restrict entry for anyone not wearing personal protective equipment (PPE), or not involved in the application.
- All non-essential personnel and building occupants should leave the spray area during application and not return to the jobsite for one hour after spraying is completed.
- Estimate the amount of air flow needed.
 - o Every work area will be different based on room shape and size (some rooms will be sufficient to isolate the work zone).
 - o Consider the amount of polyurethane foam to be applied.
 - An application of 1 inch of foam to seal an entire attic floor requires more air flow than a gap and crack air seal application.
 - o Consider that ductwork and filters can reduce the rated air flow performance.
- Determine the placement of ventilation equipment.

2. Follow best work practices.

- On jobsites where HVAC equipment is running, ensure that the units are off before application.
 - o Failure to turn off the equipment could spread contaminants throughout the home or building.
- Ventilation equipment should be used during and after application to prevent the build up of vapors.
- Prevent migration of contaminants to other areas of the building. Seal off the application area. (Ensure that all open ducts and penetrations to other areas of the building are sealed.) It may be necessary to isolate the work area. Construct temporary enclosures to seal off the work area. Common materials used are plastic sheeting, tarps, and wind screens.
- ICP Adhesives and Sealants highly recommends low pressure polyurethane foam applicators and assistants to wear the proper personal protection equipment. Refer to the PPE chart in this document, the SDS available in the packaging or on www.icpadhesives.com for details.

3. Establish air flow.

- Use ventilation equipment that provides make-up air. Exhaust vapors to the outside of the building.
- A typical fan with an output of 2000 to 3000 cfm can be purchased at a local retail home improvement center or hardware store (approx. \$200-\$300).
 - o Ensure that the exhaust fan capacity is 10% greater than your supply fan. Use a larger capacity exhaust fan and a smaller fan to bring in the make-up air. Consider using different size flexible ducts to provide different flow rates.
 - o Flexible ductwork, used to help control and direct air flow, can be purchased at a local home improvement center or hardware store (approx. \$50-\$100).
 - o Filter exhaust fans with simple furnace particulate filters to protect the fans and outside property.
 - o Consider protecting fans from overspray.
 - o Using a fan without exhausting to the outside, can cause recirculated vapors to accumulate in the work area.

- Use a smoke pencil to confirm air movement away from applicator.
- In the attic and crawlspace application, do not block entry/exit point with fans.

4. Exhaust vapors to a safe location outside of the building.

- Direct the exhaust away from all people and pets.
 - o Mark off the work area with caution tape.
 - o Close open windows or doors, not providing make-up air, to prevent vapors from entering other areas of the building.

5. Continue to ventilate the work space for at least one hour after application.

- Occupants can re-enter one hour after the area has been ventilated.
 - o Extend ventilation time for lingering or pre-existing odors.
 - o Follow up with the building occupant to determine if they are satisfied with the polyurethane foam performance.



* Based on the EPA's 2011 Ventilation Guidelines for SPF (Spray Polyurethane Foam), refer to www.epa.gov/dfe for additional information. For detailed SPF information, visit the following sites: www.spraypolyurethane.org or www.sprayfoam.org. See Section 8, page 10 for links and QR codes.

Objective:

The goal of the study was to monitor the presence of airborne isocyanates, specifically MDI (Methylene diphenyl diisocyanate), during the application and curing of low pressure spray polyurethane foam (SPF) in a typical weatherization application. The air was sampled and monitored in order to confirm safety procedures for protective equipment and re-entry times as well as determine potential health hazards for the installers and/or homeowners. The data was collected to demonstrate that with the use of proper ventilation and personal protective equipment (PPE), low pressure spray polyurethane foam can be applied safely in a residential environment.

Case Study:

- Garrison Colonial home constructed in 1972
- 2300 ft² 2 story home with 4 bedrooms and 2.5 baths
 - Full size unfinished basement
 - One story cathedral ceiling family room connecting the main house and garage
 - Steep pitch attic accessible by hatch way
 - HVAC equipment in the attic and basement



Methodology:

- Hired Independent Environmental Engineering Consultant to conduct monitoring
- Worked with Association for Energy Affordability to create a detailed scope of work following BPI standards and testing protocols
 - Baseline Readings
 - Measured for CO, CO₂, MDI and recorded temperature and humidity
 - Personal and Area Sampling (MDI)
 - During critical air seal of attic
 - During monolithic coating of entire attic floor (1" of foam)
 - During rim joist application
 - One hour re-entry confirmation
 - ICP's one hour recommended re-entry time based on a Human Health Risk Assessment and in-house air monitoring for MDI



Sealing the attic floor and rim joist during testing

Low Pressure Spray Polyurethane Foam (SPF) Results:

APPLICATION	DURATION	LIMIT	LOCATION	AIRBORNE CONCENTRATION MG/M ³	CONCLUSION
Basement - Rim Joist	60 minutes	OSHA .200mg/m ³ ACGIH 0.051 mg/m ³ NIOSH 0.051 mg/m ³	Personal Sample	<.015	No recorded levels of airborne MDI
			Area Sample	<.015	No recorded levels of airborne MDI
Attic - Critical Air Seal	130 minutes	OSHA .200mg/m ³ ACGIH 0.051 mg/m ³ NIOSH 0.051 mg/m ³	Personal Sample	.0085	Recordable, but below personal exposure limit
			Area Sample	<.0076	No recorded levels of airborne MDI
Attic - Floor Air Seal	94 minutes	OSHA .200mg/m ³ OSHA Action Level: .100 mg/m ³ ACGIH .051mg/m ³ NIOSH 0.051 mg/m ³	Personal Sample	.028	Recordable, but below personal exposure limit
			Area Sample	<.0064	No recorded levels of airborne MDI
POST APPLICATION MONITORING RESULTS					
Attic Area	1 hour after application	OSHA .200mg/m ³ OSHA Action Level: .100 mg/m ³ ACGIH .051mg/m ³ NIOSH 0.051 mg/m ³	Attic	<.0017	One hour after the application of low pressure polyurethane SPF, there were no recorded levels of airborne MDI
2nd Floor Hallway			Hallway	<.0017	
1st Floor Bottom of Stairway			Stairway	<.0016	

Conclusion:

ICP's product stewardship recommendations for low pressure spray polyurethane foam are effective for protection of professional installers and building occupants.



During monolithic coating of entire attic floor (1" of foam)



Ventilation testing set-up for spraying the attic floor

Low Pressure One-Component Polyurethane Foam Sealant (OCF) Results:

APPLICATION	DURATION	LIMIT	LOCATION	AIRBORNE CONCENTRATION MG/M ³	CONCLUSION
Applying beads of Handi-Foam polyurethane foam sealant	15 minutes	OSHA .200mg/m ³ ACGIH 0.051 mg/m ³ NIOSH 0.051 mg/m ³	Personal Sample	<.001 mg/m ³	No recorded levels of airborne MDI

ICPADhesives.com Product Resources

WWW.ICPADHESIVES.COM

An online resource providing up-to-date information on all of the Handi-brand® products that includes:

- Industry & Product News
- Videos
- About ICP Adhesives and Sealants, Inc.
- Products
- Technical Information
- Health & Safety
- Contact Information



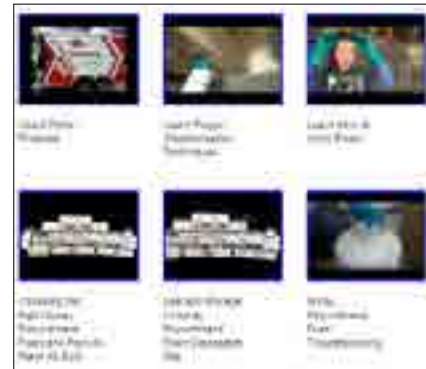
A & S ACADEMY

Online training tool that features individual informative videos for each topic and gives us the opportunity to provide more dynamic and focused content, building into a library of resources and education on low pressure polyurethane foams, the Handi-brands and ICP Adhesives and Sealants, Inc.



A & S Academy has 7 video-based modules:

- Foam 101
- Sealant & Adhesives
- Spray & Pour-in-Place Polyurethane Foams
- Importance of Temperature
- Health & Safety
- Weatherization
- Magnum Heated System® Recertification



VIDEO LIBRARY

- About ICP Adhesives and Sealants, Inc.
- Learn Proper Weatherization Techniques
- Learn how to Work Smart
- Choosing the Right Kit Size
- Use and Storage of SPF Kits
- SPF Troubleshooting

SDS & TDS LIBRARY

SDS and TDS information for each product can be found under the "Technical Information" tab on the homepage. Here you can click on the desired product or logo to access SDS, TDS, and even specific operating instructions by either item number, product size, or product name.

INDUSTRY TRAINING

The center for Polyurethanes Industry (CPI) of the American Chemistry Council (ACC) has released free low pressure spray polyurethane foam (SPF) health and safety training available at www.spraypolyurethane.org.



www.icpadhesives.com



A & S Academy



Video Library



SDS & TDS Library



Industry Training

Distributor Information

TRANSPORTATION (IN COMMERCE)

- Hazardous material training is required for shipping ICP products. Resources for this training include www.dgitraining.com and www.jjkelleronline.com. To acquire a CDL with a hazmat endorsement, go through your local drivers licensing authority.
- For more information regarding transportation requirements mandated by the U.S. Department of Transportation (D.O.T.), please visit www.phmsa.dot.gov/rules-regulations or call the federal D.O.T. hazmat hotline at 1.800.467.4922 for any hazmat questions.

MARKETING GUIDELINES

- ICP's low pressure polyurethane foam products are intended for professional use only and should not be marketed as homeowner or do-it-yourself products.
- Always use and recommend proper PPE (personal protective equipment) for application:
 - Low Pressure One-Component Polyurethane Foam Sealants & Adhesives – safety glasses or goggles, clothing that protects from dermal exposure, and nitrile gloves.
 - Low Pressure Spray and Pour-in-Place Polyurethane Foams – safety glasses with side shields or goggles, clothing that protects from dermal exposure, nitrile gloves, and proper respirator.
- **Videos and Images** - follow proper application and safety recommendations in visuals.
 - **Do:**
 - Show proper respirators, nitrile gloves, safety goggles and protective clothing in all product images and videos (See Section 2)
 - Instruct and show the use of PAPR (powered air purifying respirators) in enclosed spaces (i.e. attics and crawl spaces)
 - Consult the Marketing Department at ICP Adhesives and Sealants for guidance and approval of documents, websites and videos featuring Handi-brand® images PRIOR to publishing (800.321.5585)
 - **Do Not:**
 - Show exposed skin on arms, hands or legs during application
 - Show children spraying or near the spray area
 - Show bystanders in the work zone without the proper PPE
 - Show the use of a surgical-type dust mask when spraying
 - Show an attic or crawlspace application without the applicator wearing a PAPR
 - Publish websites, videos or documents featuring Handi-brand images before receiving approval from ICP Adhesives and Sealants.
- Communicate SDS availability (available on www.icpadhesives.com under Technical Information)
- Do not describe polyurethane foam products as non-toxic
 - Chemicals used in these products are toxic; cured foam is non-toxic
- Energy efficiency or renewable resource/green claims - ALWAYS provide support documentation (reference FTC Guides for the Use of Environmental Marketing Claims)
 - i.e. "Save 50% on your energy bills", "improves indoor air quality"

Industry Resources

For more low pressure polyurethane foam information and industry links, scan below:



OSHA Confined Spaces



OSHA Respirator Fit Testing



EPA Ventilation Guidelines for SPF



SPFA Technical Documents

Section 11 Packaging Information

All of ICP's low pressure polyurethane foam products come in various sizes and formulations to meet application and market requirements. Product description, optimum chemical and storage temperature, personal protective equipment (PPE) requirements, yields and hazardous labeling are available on every products' packaging or labeling. See below for the general areas where this information can be found.

LOW PRESSURE SPRAY (SPF) & POUR-IN-PLACE (PIP) POLYURETHANE FOAM DISPOSABLE KITS

FRONT



SDS Packet located inside front flap (contains: SDS and Operating Instructions)

QR Code

Item number, product description, weight, manufacture and expiration date.

SIDE (ES)



Initial prep, optimum chemical and storage temperature and yields

PPE pictograms and set-up instructions

OSHA's Hazard Communication Standard Labeling

BACK



Initial prep

Optimum chemical and storage temperature

Yields

PPE pictograms and set-up instructions

OSHA's Hazard Communication Standard Labeling

Company contact information

SIDE (FR)



Initial prep, optimum chemical and storage temperature and yields

PPE pictograms and set-up instructions

Shipping Information

WHMIS Hazardous Material Labeling

(ES) Spanish language (FR) French language

Section 11 Packaging Information

LOW PRESSURE ONE-COMPONENT POLYURETHANE FOAM SEALANTS & ADHESIVES (OCF)



EXAMPLE



Company contact information

OSHA's Hazard Communication Standard Labeling

WHMIS Hazardous Material Labeling

PPE pictograms and set-up instructions

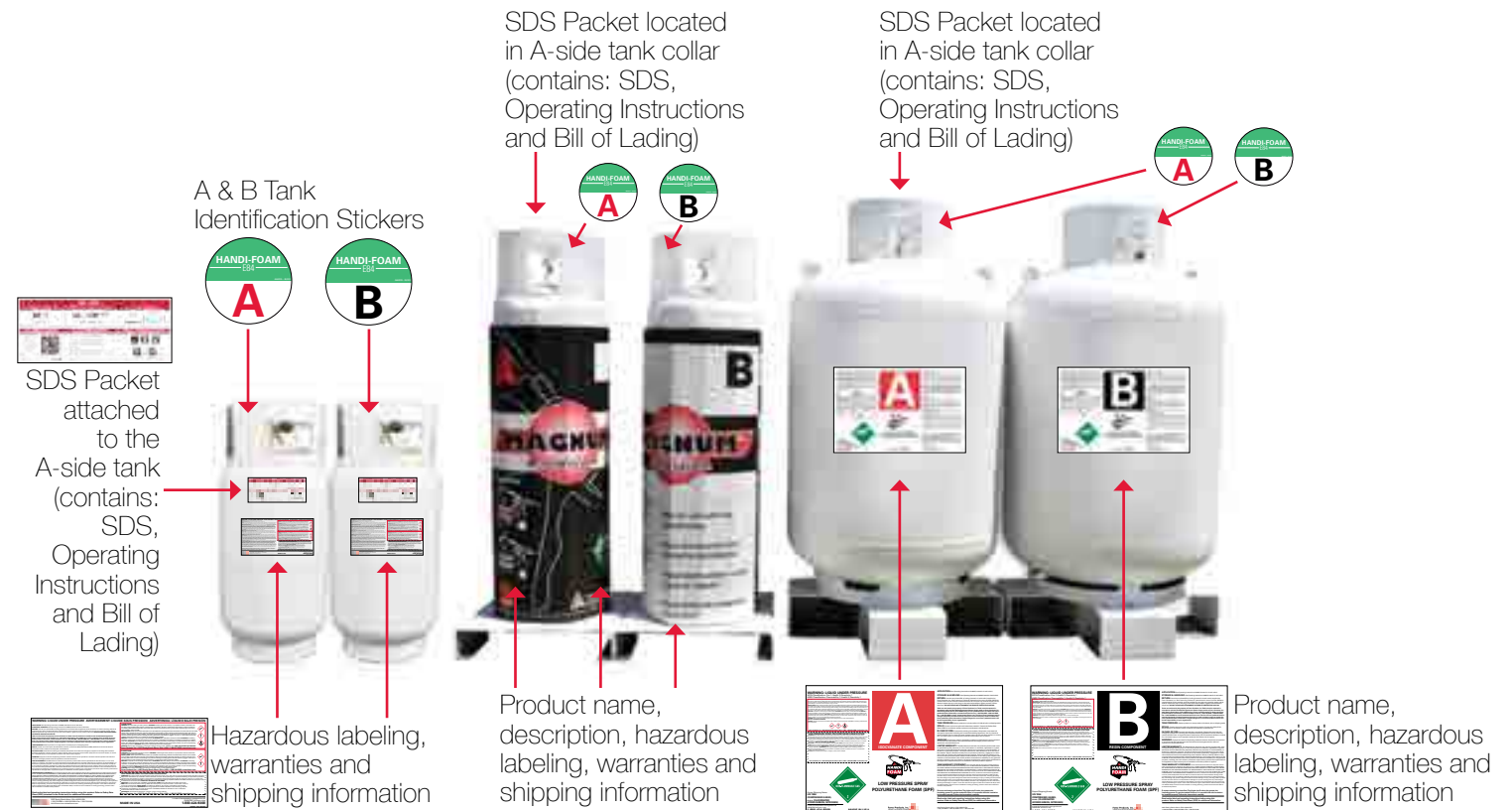
Initial prep, optimum chemical and storage temperature and yields

Item number and shipping information

(ES) (FR)

Product name, description, hazardous labeling and weight

LOW PRESSURE REFILLABLE SPRAY (SPF) & POUR-IN-PLACE (PIP) POLYURETHANE FOAM SYSTEMS



SDS Packet located in A-side tank collar (contains: SDS, Operating Instructions and Bill of Lading)

SDS Packet located in A-side tank collar (contains: SDS, Operating Instructions and Bill of Lading)

A & B Tank Identification Stickers

SDS Packet attached to the A-side tank (contains: SDS, Operating Instructions and Bill of Lading)

Product name, description, hazardous labeling, warranties and shipping information

Hazardous labeling, warranties and shipping information

Product name, description, hazardous labeling, warranties and shipping information

Product name, description, hazardous labeling, warranties and shipping information

LOW PRESSURE SPRAY POLYURETHANE FOAM (SPF) & LOW PRESSURE POUR-IN-PLACE POLYURETHANE FOAM (PIP) KITS							
Item #	UPC #	Description	Size	A-Side SDS Item #	B-Side SDS Item #	TDS Item #	Operating Instruction Item #
P10600	0 26547 10600 5	Handi-Foam Quick Cure	II-12	A16178A	A16178B	A16129	Refer to packaging
P10650	0 26547 10650 0	Handi-Foam Quick Cure	II-22	A16178A	A16178B	A16129	Refer to packaging
P10700	0 26547 10700 2	Handi-Foam Quick Cure	II-105	A16178A	A16178B	A16130	A16600
P10720	0 26547 10720 0	Handi-Foam Quick Cure	II-205	A16178A	A16178B	A16130	A16600
P10749	0 26547 10749 1	Handi-Foam Quick Cure	II-605	A16178A	A16178B	A16130	A16600
P10705	0 26547 10705 7	Handi-Foam E84 Class 1(A)	II-105	A16178A	A16178B	A16505	A16600
P10726	0 26547 10726 2	Handi-Foam E84 Class 1(A)	II-205	A16178A	A16178B	A16505	A16600
P10762	0 26547 10762 0	Handi-Foam E84 Class 1(A)	II-605	A16178A	A16178B	A16505	A16600
P10695	0 26547 10695 1	Handi-Foam Roof Patch	II-75	A16178A	A16178B	A16141	A16600
P10725	0 26547 10725 5	Handi-Foam Roof Patch	II-145	A16178A	A16178B	A16141	A16600
P10750	0 26547 10750 7	Handi-Foam Roof Patch	II-425	A16178A	A16178B	A16141	A16600
P10733	0 26547 10733 0	Handi-Foam Commercial Vehicle	II-205	A16178A	A16183B	A16137	A16600-B
P10756	0 26547 10756 9	Handi-Foam Commercial Vehicle	II-605	A16178A	A16183B	A16137	A16600-B
P10697	0 26547 10697 5	Handi-Foam Sound Barrier	II-250	A16178A	A16180B	A16135	A16600-C
P10714	0 26547 10714 9	Handi-Foam Sound Barrier	II-450	A16178A	A16180B	A16135	A16600-C
P10747	0 26547 10747 7	Handi-Foam Sound Barrier	II-1350	A16178A	A16180B	A16135	A16600-C
P10694	0 26547 10694 5	Handi-Foam Low Density	II-450	A16178A	A16180B	A16531	A16600-C
P10770	0 26547 10770 5	Handi-Foam Low Density	II-1350	A16178A	A16180B	A16531	A16600-C
P50001	0 26547 50001 8	Handi-Flow Channel Fill	2-15	A16195A	A16195B	A16411	A16601-F
P50002	0 26547 50002 5	Handi-Flow Channel Fill	2-44	A16195A	A16195B	A16411	A16601-F
P10742	0 26547 10742 2	Handi-Flow Cavity Fill	2-14	A16178A	A16191B	A16131	A17022
P10766	0 26547 10766 8	Handi-Flow Cavity Fill	2-44	A16178A	A16191B	A16131	A17022
P10709	0 26547 10709 5	Handi-Flow Slow Rise	2-7	A16178A	A16178B	A16131	A17022
P10732	0 26547 10732 3	Handi-Flow Slow Rise	2-13	A16178A	A16178B	A16131	A17022
P10760	0 26547 10760 6	Handi-Flow Slow Rise	2-43	A16178A	A16178B	A16131	A17022
P10737	0 26547 10737 8	Silent-Seal NA	II-180	A16177A	A16177B	A16513	A14050
P10712SAT	0 26547 10712 5	Silent-Seal SA	II-180	A16177A	A16178B	A16511	A14050
P10710	0 26547 10710 1	Silent-Seal MVS	II-180	A16177A	A16177B	A16516	A14050

LOW PRESSURE POLYURETHANE FOAM REFILLABLE SYSTEMS (SPF & PIP)							
Item #	UPC #	Description	Size	A-Side SDS Item #	B-Side SDS Item #	TDS Item #	Operating Instruction Item #
P22000	0 26547 22000 8	System 17 Handi-Foam Quick Cure	17 gallon	A16178A	A16178B	A16119	A16605
P22100	0 26547 22100 5	System 27 Handi-Foam Quick Cure	27 gallon	A16178A	A16178B	A16119	A16605
P22500	0 26547 22500 3	System 60 Handi-Foam Quick Cure	60 gallon	A16178A	A16178B	A16119	A16605
P22700	0 26547 22700 7	System 100 Handi-Foam Quick Cure	100 gallon	A16178A	A16178B	A16119	A16605
P22070	0 26547 22070 1	System 17 Handi-Foam E84 Class 1(A)	17 gallon	A16178A	A16178B	A16507	A16605
P22270	0 26547 22270 5	System 27 Handi-Foam E84 Class 1(A)	27 gallon	A16178A	A16178B	A16507	A16605
P22470	0 26547 22470 9	System 60 Handi-Foam E84 Class 1(A)	60 gallon	A16178A	A16178B	A16507	A16605
P22670	0 26547 22670 3	System 100 Handi-Foam E84 Class 1(A)	100 gallon	A16178A	A16178B	A16507	A16605
P21050	0 26547 22040 4	System 8 Handi-Foam Commercial Vehicle	8 gallon	A16178A	A16183B	A16139	A16605
P77001	0 26547 77001 5	System 8 Handi-Flow Channel Fill	8 gallon	A16195A	A16195B	A16146	A16605
P22245	0 26547 22245 3	System 27 Handi-Flow Slow Rise	27 gallon	A16178A	A16178B	A16143	A16605
P22445	0 26547 22445 7	System 60 Handi-Flow Slow Rise	60 gallon	A16178A	A16178B	A16143	A16605

LOW PRESSURE ONE-COMPONENT POLYURETHANE FOAM SEALANTS & ADHESIVES (OCF) – AEROSOL						
Item #	UPC #	Description	Size	SDS Item #	TDS Item #	Operating Instruction Item #
P30002	0 26547 30002 1	Handi-Foam Straw Foam	12 oz (340 g)	A16186	A16515	Refer to TDS & product label
P30101	0 26547 30101 1	Handi-Foam Straw Foam	20 oz (567 g)	A16186	A16515	Refer to TDS & product label
P30107	0 26547 30107 3	Handi-Foam Straw Foam	24 oz (680 g)	A16186	A16515	Refer to TDS & product label
P30152	0 26547 30152 3	Handi-Foam Straw Foam	29 oz (820 g)	A16186	A16515	Refer to TDS & product label
P30115	0 26547 30115 8	Handi-Foam Gun Foam	24 oz (680 g)	A16186	A16406	Refer to TDS & product label
P30290	0 26547 30290 2	Handi-Foam Gun Foam	29 oz (820 g)	A16186	A16406	Refer to TDS & product label
P30120	0 26547 30120 2	Handi-Foam Extreme Gun Foam	24 oz (680 g)	A16186	A16128	Refer to TDS & product label
P30033	0 26547 30033 5	Handi-Foam Fireblock Straw Foam	12 oz (340 g)	A16186	A16127	Refer to TDS & product label
P30192	0 26547 30192 9	Handi-Foam Fireblock Straw Foam	24 oz (680 g)	A16186	A16127	Refer to TDS & product label
P30181	0 26547 30181 3	Handi-Foam Fireblock Gun Foam	24 oz (680 g)	A16186	A16127	Refer to TDS & product label
P30185	0 26547 30185 1	Handi-Foam Fireblock West Gun Foam	24 oz (680 g)	A16186	A16148	Refer to TDS & product label
P30053	0 26547 30053 3	Handi-Foam Black Straw Foam	12 oz (340 g)	A16186	A16528	Refer to TDS & product label
P30251	0 26547 30251 3	Handi-Foam Black Gun Foam	24 oz (680 g)	A16186	A16528	Refer to TDS & product label
P30295	0 26547 30295 7	Handi-Foam Black Gun Foam	29 oz (820 g)	A16186	A16528	Refer to TDS & product label
P30270	0 26547 30270 4	Handi-Foam Window & Door Straw Foam	12 oz (340 g)	A16186	A16157	Refer to TDS & product label
P30271	0 26547 30271 1	Handi-Foam Window & Door Straw Foam	24 oz (680 g)	A16186	A16157	Refer to TDS & product label
P30272	0 26547 30272 8	Handi-Foam Window & Door Gun Foam	24 oz (680 g)	A16186	A16157	Refer to TDS & product label
P30273	0 26547 30273 6	Handi-Foam Window & Door West Gun Foam	24 oz (680 g)	A16186	A16157W	Refer to TDS & product label
P30140	0 26547 30140 0	Handi-Stick Architectural Foam Shapes Gun Foam	24 oz (680 g)	A16160	A16138	Refer to TDS & product label
P30132	0 26547 30132 5	Handi-Stick Polystyrene Construction Gun Foam	24 oz (680 g)	A16152	A16404	Refer to TDS & product label
P30162	0 26547 30162 2	Handi-Stick Polystyrene Construction Gun Foam	31 oz (880 g)	A16152	A16404	Refer to TDS & product label
P10178	0 26547 10178 9	Handi-Stick General Use Gun Foam	20 oz (567 g)	A16354	A16134	Refer to TDS & product label
P10130	0 26547 10130 7	Handi-Stick Subfloor Gun Foam	24 oz (680 g)	A16354	A16121	Refer to TDS & product label
P30033C	0 26547 00033 4	Handi-Foam Fireblock (Extreme) Straw Foam	12 oz (340 g)	A16186	A16127C	Refer to TDS & product label
P30192C	0 26547 00192 8	Handi-Foam Fireblock (Extreme) Straw Foam	24 oz (680 g)	A16186	A16127C	Refer to TDS & product label
P30181C	0 26547 00181 2	Handi-Foam Fireblock (Extreme) Gun Foam	24 oz (680 g)	A16186	A16127C	Refer to TDS & product label
P30002C	0 26547 00002 0	Handi-Foam Extreme Window & Door Straw Foam	12 oz (340 g)	A16186	A16156C	Refer to TDS & product label
P30107C	0 26547 00107 2	Handi-Foam Extreme Window & Door Straw Foam	24 oz (680 g)	A16186	A16156C	Refer to TDS & product label
P30120C	0 26547 00120 1	Handi-Foam Extreme Window & Door Gun Foam	24 oz (680 g)	A16186	A16156C	Refer to TDS & product label
P30290C	0 26547 00290 1	Handi-Foam Extreme Window & Door Gun Foam	29 oz (820 g)	A16186	A16156C	Refer to TDS & product label

LOW PRESSURE ONE-COMPONENT POLYURETHANE FOAM SEALANTS & ADHESIVES (OCF) – CYLINDERS						
Item #	UPC #	Description	Size	SDS Item #	TDS Item #	Operating Instruction Item #
P40340	0 26547 40340 1	Handi-Foam 40 Series Cylinder Foam w/ accessories	I-160	A16151	A16410	A15000
P40341	0 26547 40341 8	Handi-Foam 40 Series Cylinder Foam Tank Only	I-160	A16151	A16410	A15000
P40540	0 26547 40540 5	Handi-Foam 40 Series Cylinder Foam w/ accessories	I-260	A16151	A16410	A15000
P40541	0 26547 40541 2	Handi-Foam 40 Series Cylinder Foam Tank Only	I-260	A16151	A16410	A15000



This document contains ICP Adhesives and Sealants' recommendations for the safe use and handling of our low pressure spray polyurethane products. It is intended to provide general information to persons who may handle or apply low pressure spray polyurethane foam chemicals. It is not intended to serve as a substitute for in-depth training or specific handling or application requirements, nor is it designed or intended to define or create legal rights or obligations. It is not a prescriptive guide. All persons involved in handling and applying spray polyurethane foam chemicals should independently ascertain that their actions are in compliance with current federal, state and local laws and regulations and should consult with their employer concerning such matters.



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Handi-brand® low pressure one-component polyurethane foam sealants and adhesives (OCF), low pressure spray polyurethane foams (SPF), and low pressure pour-in-place polyurethane foams (PIP) are composed of a diisocyanate, hydrofluorocarbon or hydrocarbon blowing agent, and polyol. For polyurethane foam sealants/adhesives: wear protective glasses with side shields or goggles, nitrile gloves, and clothing that protects against dermal exposure. Use only in a well-ventilated area. Avoid breathing vapors. Read the SDS and instructions carefully before use (www.icpadhesives.com). For spray polyurethane foams and pour-in-place polyurethane foams: wear protective glasses with side shields or goggles, nitrile gloves, and clothing that protects against dermal exposure. Use only in a well-ventilated area and with certified respiratory protection or a powered air purifying respirator (PAPR). Additional information on ventilation can be found in the Product Stewardship Guide (www.icpadhesives.com). Read the SDS (www.icpadhesives.com) and instructions carefully before use. The urethane foam produced from these ingredients will support combustion and may present a fire hazard if exposed to a fire or excessive heat about 240°F (116°C). Refer to each product's TDS for specifications, testing results, and other attributes. The customer is ultimately responsible for deciding whether products and associated TDS information are appropriate for customer's use. Refer to the products' SDS, ICP's Product Stewardship Guidelines, and operating instructions for guidance on the safe and proper application of the product (www.icpadhesives.com). For professional use only. Building practices unrelated to materials can lead to potential mold issues. Material suppliers cannot provide assurance that mold will not develop in any specific system.