

Honeywell Solstice® Liquid Blowing Agent



Spray Foam Insulation

Honeywell

Non-flammable and Low GWP Blowing Agent for Spray Foam Insulation

Honeywell Solstice® Liquid Blowing Agent is the latest advance in blowing agent technology and, with a GWP of 1, is a superior choice for use in spray foam insulation.

Spray foam is used to insulate, provide air sealing and improve structural strength in buildings. The insulation potential of spray foam is dependent upon the insulating gas in the cells of the polyurethane foam. Solstice LBA provides the greatest insulation value.

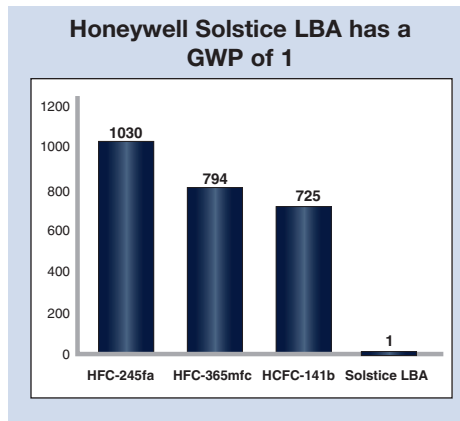
Performance

Solstice LBA for spray foam offers:

- improved k-factor – 2-4% better than foams made with all HFCs
- higher solubility in polyol blends – as much as 20% higher than 245fa in polyols tested
- lower vapor pressure in polyol blends – as much as 60% lower in formulations tested

Cost Effectiveness

- Lower molecular weight than HFC-245fa and HFC-365mfc means less blowing agent needed to do the job



- Better R-value / inch means improved k-factor (thermal insulation value)
- More consistent foam processing over wide range of application conditions

Environmental Impact

Solstice LBA is a promising replacement for foam insulation blowing agents currently in use, with the potential to make significant contributions to reductions in global warming. When substituted for HCFC-141b, HFC-245fa and HFC-365mfc, the use of Solstice LBA can yield substantial improvements in the environmental impact of foam blowing agents immediately. With a global warming potential (GWP) of 1, its widespread adoption could save about 60 million metric tons per year of CO₂ equivalent, comparable to eliminating carbon dioxide emissions from more than 11.8 million cars every year. (Source: GHG Equivalencies Calculator: <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>)

Safety

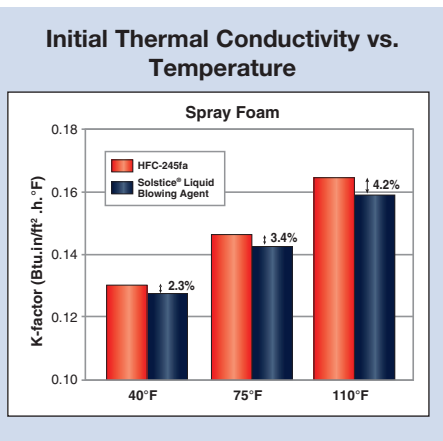
Solstice LBA is a non-flammable liquid by ASTM E-681, exhibits no flashpoint or vapor flame limits. Solstice LBA has a

very low Maximum Incremental Reactivity (MIR), which means that the material will have a low impact on tropospheric ozone, or smog, creation.

Regulatory

Honeywell Solstice LBA is:

- Listed under the EPA's SNAP program
- Listed on the TSCA inventory
- VOC exempt. This means that incineration equipment to control ground level ozone and smog formation is not required.



Environmental and Safety Properties

	Solstice LBA	HCFC-141b
Atmospheric Life	26 days	10.8 years
ODP	~0*	0.11
GWP ₁₀₀	1	725
Flammable	No	No
Exposure Limit (OEL)	800ppm	500ppm

* No impact on ozone layer depletion and is commonly referred to as zero (Wuebbles, Private communication)

Solstice Liquid Blowing Agent Outperforms the Competition*

	HCFC 141b	Water	HFC 245fa	Solstice LBA
Performance				
Lambda	●	●	●	●
Using Existing Equipment	●	●	●	●
Cost				
Yield	●	●	●	●
Application Window	●	●	●	●
Environment				
Global Warming Impact (direct and indirect)	●	●	●	●
Ozone Depletion Impact	●	●	●	●
Volatile Organics	●	●	●	●
Safety				
Toxicity	Meets Requirements			

*Based upon field trial data

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