



MOMENTIVE
performance materials

Niax* Silicone L-655

Product Description

Niax silicone L-655 is a medium potency, organosilicone surfactant to consider for use in flexible slabstock foam operations that require the use of flame retardants. This surfactant can help minimize the amount of flame retardant required to pass the California Technical Bulletin 117 while maintaining an excellent cell quality in foam made in CO₂ processes, equivalent to that obtained using Niax silicone L-635. Performance improvement in other combustibility tests, such as MVSS302, may also be achieved. This surfactant may be considered for manufacturing processes that use CO₂ as auxiliary blowing agent to produce flexible slabstock foams. This surfactant can help provide excellent froth formation and stability as required for "CO₂ process" to make soft and low density foam grades.

Key Features and Typical Benefits

Niax silicone L-655 can help provide:

- Fine cell structure of FR surfactants in CO₂ process
- Excellent froth stability required for CO₂ process
- Wide foam processing latitude
- Excellent processing on all types of foam equipment

Typical Physical Properties

Physical Form	Clear liquid
Viscosity at 25°C	945
Specific Gravity at 25/25°C	1.0295
Density at 25°C, lb/gal	8.56
Coefficient of Expansion	0.0007
Freezing Point, °C (°F)	<-20 (-4)
Flash Point, Pensky Martens Closed Cup. ⁽¹⁾ °C (°F)	113 (236)

(1) ASTM D93

*Niax is a trademark of Momentive Performance Materials Inc.

Momentive Performance Materials provides versatile materials as the starting point for our creative approach to ideas that help enable new developments across hundreds of industrial and consumer applications. We are helping customers

solve product, process, and performance problems; our silanes, fluids, elastomers, sealants, resins, adhesives, urethane additives, and other specialty products are delivering innovation in everything from car engines to biomedical devices.

From helping to develop safer tires and keeping electronics cooler, to improving the feel of lipstick and ensuring the reliability of adhesives, our technologies and enabling solutions are at the frontline of innovation.

Potential Applications

Performance in California Technical Bulletin 117 tests

Full-scale production tests were run to determine the utility of Niax silicone L-655. Two foam grades similar to those used in applications subject to the California Technical Bulletin 117, Section A, Part 1 standards were made. Samples from these test grades were tested for char length using the procedures in that Part. Notice that in both of these grades additional tin catalyst would have been required to achieve the same physical properties.

1025 Combustion Modified Grade

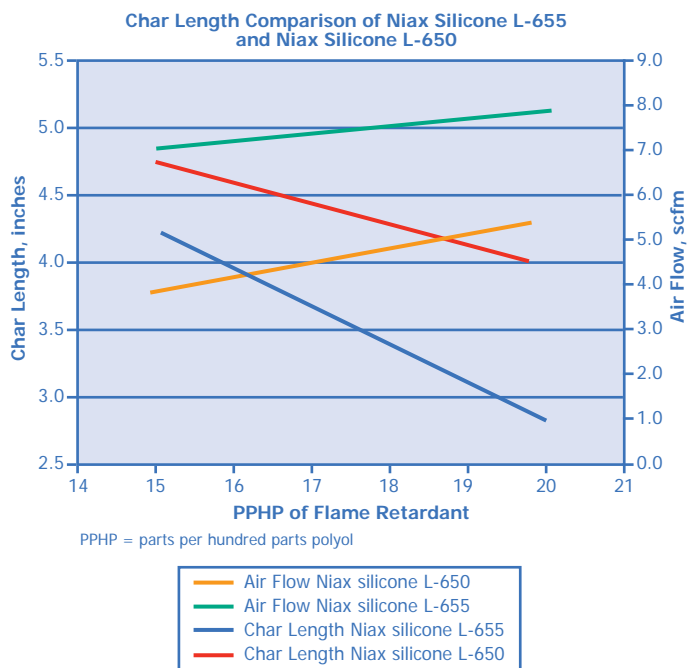
	Niax silicone L-635	Niax silicone L-655 + 5% Tin
Density, pcf	0.94	0.97
25% IFD	23.33	25.51
Air Flow, scfm	3.27	4.60
Char Length, inches	3.96	3.25
% Reduction Char Length		17.9
Cell Quality	Fine	Fine

1226 Combustion Modified Grade

	Niax silicone L-635	Niax silicone L-655 + 10% Tin
Density, pcf	1.18	1.25
25% IFD	24.49	27.59
Air Flow, scfm	3.60	4.40
Char Length, inches	1.37	1.19
% Reduction Char Length		12.7
Cell Quality	Fine	Fine

Product formulations are included as illustrative examples only. Momentive makes no representation or warranty of any kind with respect to any such formulations, including, without limitation, concerning the efficacy or safety of any product manufactured using such formulations.

Lab scale flammability testing was also performed comparing the FR performance of Niax silicone L-655 to that of FR silicone Niax silicone L-650. Foams were made in a 1.2 pcf 34 IFD foam grade. The flame retardant was varied from 16 parts to 20 parts and the average char length was recorded. The graph below shows that Niax silicone L-655 can produce a much more open foam and maintain FR characteristics similar to those obtained using Niax silicone L-650. See the below graph for flammability comparison:



Note: Test data. Actual results may vary.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers considering the use of this product should review the latest Material Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Material Safety Data Sheets are available at www.momentive.com or, upon request, from any Momentive Performance Materials representative. Use of other materials in conjunction with Momentive Performance Materials products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

Emergency Service

Momentive Performance Materials maintains an around-the-clock emergency service for its products. The American Chemistry Council (CHEMTREC), Transport Canada (CANUTEC), and the Chemical Emergency Agency Service also maintain an around-the-clock emergency service for all chemical products:

Location	Momentive Performance Materials Products	All Chemical Products
Mainland U.S., Puerto Rico	518.233.2500	CHEMTREC: 800.424.9300
Alaska, Hawaii	518.233.2500	CHEMTREC: 800.424.9300
Canada	518.233.2500	CANUTEC: 613.996.6666 (collect) or CHEMTREC: 800.424.9300
Europe, Middle East, Africa	+32.(0)14.58.45.45 (Belgium)	CHEMTREC: +1-703.527.3887 (collect)
Latin America, Asia/Pacific, all other locations worldwide	+518.233.2500	CHEMTREC: +1-703.527.3887 (collect)
At sea	Radio U.S. Coast Guard, which can directly contact Momentive Performance Materials at 518.233.2500 or CHEMTREC at 800.424.9300.	

DO NOT WAIT. Phone if in doubt. You will be referred to a specialist for advice.

CUSTOMER SERVICE CENTERS

North America

E cs-na.silicones@momentive.com

• Specialty Fluids	T +1.800.523.5862	F +1.304.746.1654
• UA, Silanes and Specialty Coatings	T +1.800.334.4674	F +1.304.746.1623
• RTV's and Elastomers	T +1.800.332.3390	F +1.304.746.1623
• Consumer Sealants & Construction Sealants and Adhesives	T +1.877.943.7325	F +1.304.746.1654

Latin America

E cs-la.silicones@momentive.com

• Argentina & Chile	T +54.11.4862.9544	F +54.11.4862.9544
• Brazil	T +55.11.4534.9650	F +55.11.4534.9660
• Mexico & Central America	T +52.55.5899.5135	F +52.55.5899.5138
• Venezuela, Ecuador, Peru Colombia & Caribbean	T +58.212.285.2149	F +58.212.285.2149

Europe, Middle East, Africa and India

E cs-eur.silicones@momentive.com

T +00.800.4321.1000
T +31.164.225350

Pacific

E cs-ap.silicones@momentive.com

T +1.800.820.0202
T +0.81.276.20.6182 F +81.276.31.6259 |

Worldwide Hotline

T +1.607.786.8131
T +1.800.295.2392 F +1.607.786.8309 |

Visit us at Momentive.com

THE MATERIALS, PRODUCTS AND SERVICES OF MOMENTIVE PERFORMANCE MATERIALS INC., MOMENTIVE PERFORMANCE MATERIALS USA INC., MOMENTIVE PERFORMANCE MATERIALS ASIA PACIFIC PTE. LTD., MOMENTIVE PERFORMANCE MATERIALS WORLDWIDE INC., MOMENTIVE PERFORMANCE MATERIALS GmbH, THEIR SUBSIDIARIES AND AFFILIATES DOING BUSINESS IN LOCAL JURISDICTIONS (collectively "SUPPLIERS"), ARE SOLD BY THE RESPECTIVE LEGAL ENTITY OF THE SUPPLIER SUBJECT TO SUPPLIERS' STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIERS MAKE NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SUPPLIERS' PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. AFOREMENTIONED EXCLUSIONS OR LIMITATION OF LIABILITY ARE NOT APPLICABLE TO THE EXTENT THAT THE END-USE CONDITIONS AND/OR INCORPORATION CONDITIONS CORRESPOND TO THE RECOMMENDED CONDITIONS OF USE AND/OR OF INCORPORATION AS DESCRIBED BY SUPPLIER IN ITS PRODUCT DATA SHEET AND/OR PRODUCT SPECIFICATIONS. EXCEPT AS PROVIDED IN SUPPLIERS' STANDARD CONDITIONS OF SALE, SUPPLIERS AND THEIR REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN.

Each user bears full responsibility for making its own determination as to the suitability of Suppliers' materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Suppliers' products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of Suppliers' Standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Suppliers. No statement contained herein concerning a possible or suggested use of any material, product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Suppliers or any of its subsidiaries or affiliates covering such use or design, or as a recommendation for the use of such material, product, service or design in the infringement of any patent or other intellectual property right.

*Nixia is a trademark of Momentive Performance Materials Inc.
Momentive and M-design logo are trademarks of Momentive Performance Materials Inc.
Copyright 2008 Momentive Performance Materials Inc. All rights reserved.