

MOMENTIVE™

**Silwet* Adjuvants
and SAG* Antifoams
for Agricultural Applications**



Momentive Performance Materials has been First:

- to commercialize Silicone Adjuvants for Tank-Mix applications in Agriculture (Silwet L-77* AG Spray Adjuvant)
- to develop & market pH-stable Silicone Adjuvants for In-Can formulations (Silwet* HS Spreaders and Penetrants)
- to commercialize High Performance Antifoams available globally (SAG* 1572 and SAG 1538 Silicone Antifoams)
- to offer Silicone Adjuvant to Organic Farming (Silwet ECO Spreader)

Typical Applications

- Crop Protection Products
- Herbicides
- Insecticides
- Fungicides
- Nutrients and Plant Growth Regulators

Non-Crop Products

- Home & garden pesticides
- Lawn & ornamental products
- Pest control products
- Forestry products



Overview

Momentive Performance Materials manufactures and offers globally a broad product line of specialty silicones to be considered for Agricultural applications. These silicone specialties marketed under the Silwet*, AgroSpreed* and SAG* brand names are widely used as tank mix adjuvants, in-can adjuvants and foam control agents to enhance the delivery and efficacy of many pesticide products.

Silwet and AgroSpreed adjuvants

Being first in the market, Silwet spray adjuvants are the longest-standing, and most well known silicone brands in Agriculture. Momentive silicone adjuvants have been successfully used for years to provide superspreading and excellent spray coverage on many crops. These performance properties as well as very low typical use levels make these silicone adjuvants an excellent candidate to consider for use in:

- superior spreading leading to better coverage, and reduced spray volumes
- enhanced agrochemicals efficacy
- improved uptake of active ingredients, providing a better rainfastness

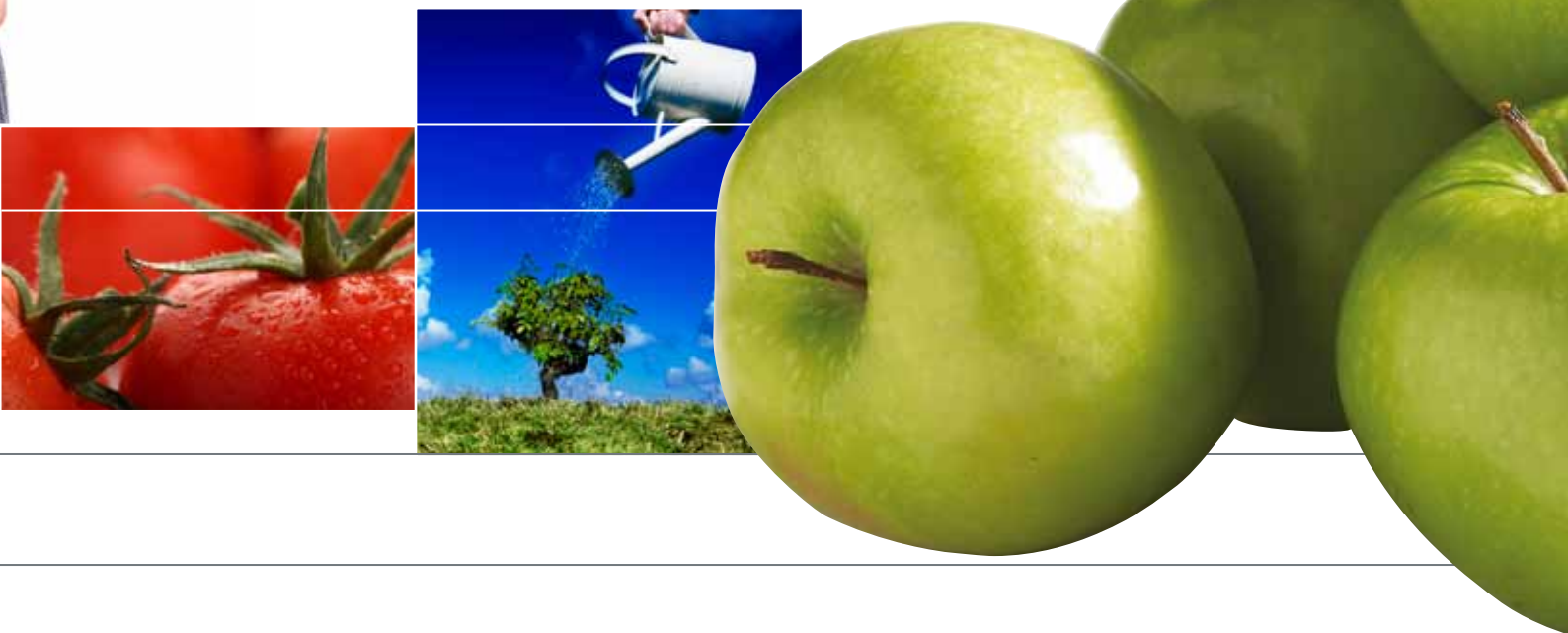
Momentive Performance Materials is continuing its long-standing innovation in Agriculture applications with the recent development and launch of the next generation silicone specialties.

The new Silwet HS (hydrostable) adjuvants employ new chemistry, making these products stable over a broad pH range, specifically developed for in-can formulations.

SAG Antifoams

Momentive SAG antifoams have demonstrated for many years their ability to powerfully control foam during the manufacturing process of pesticides and packaging as well as in tank mix spray applications.

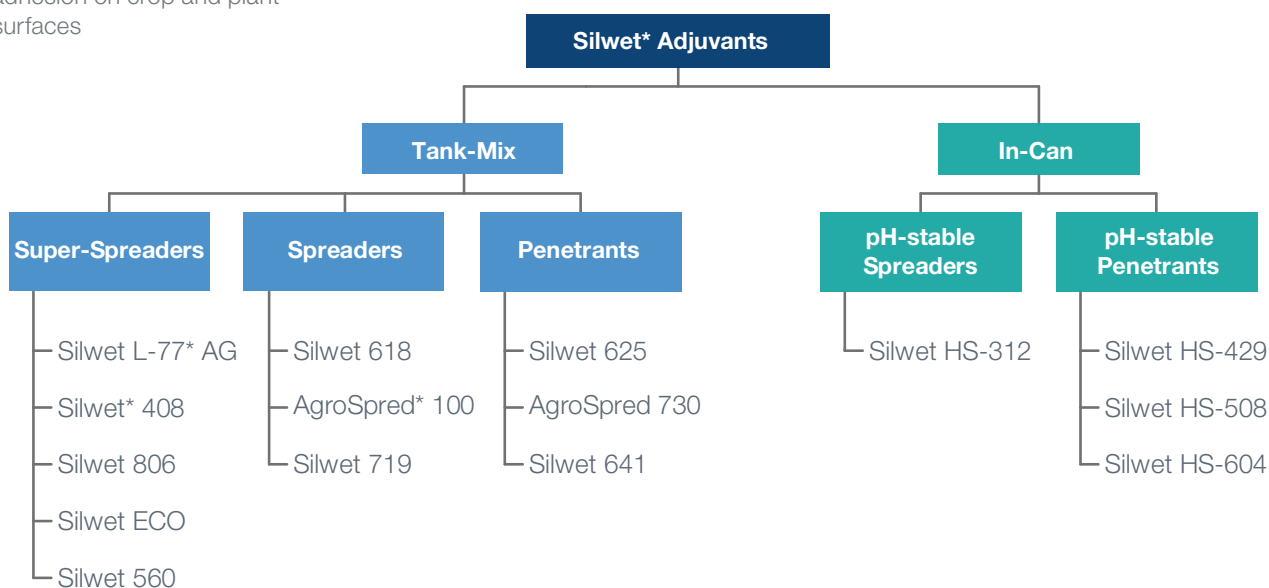
The new generation of SAG antifoams can offer lower use levels, rapid defoaming and exceptional durability and stability to provide better performance in many Ag applications.



Momentive Adjuvants

Key Features

- Superspreading for exceptional spray coverage of crop and plant surfaces
- Up to 70% spray volume reduction to lower water use and application costs
- Excellent penetration providing better pesticide uptake and efficacy
- Better spray treatment adhesion on crop and plant surfaces
- Rainfastness to lower pesticide wash-off and waste
- Lower use levels than non-silicone surfactants
- pH stable for use in In-Can formulations (Silwet HS)
- Excellent compatibility and stability in Ag formulations.



Silwet & AgroSpred Adjuvants

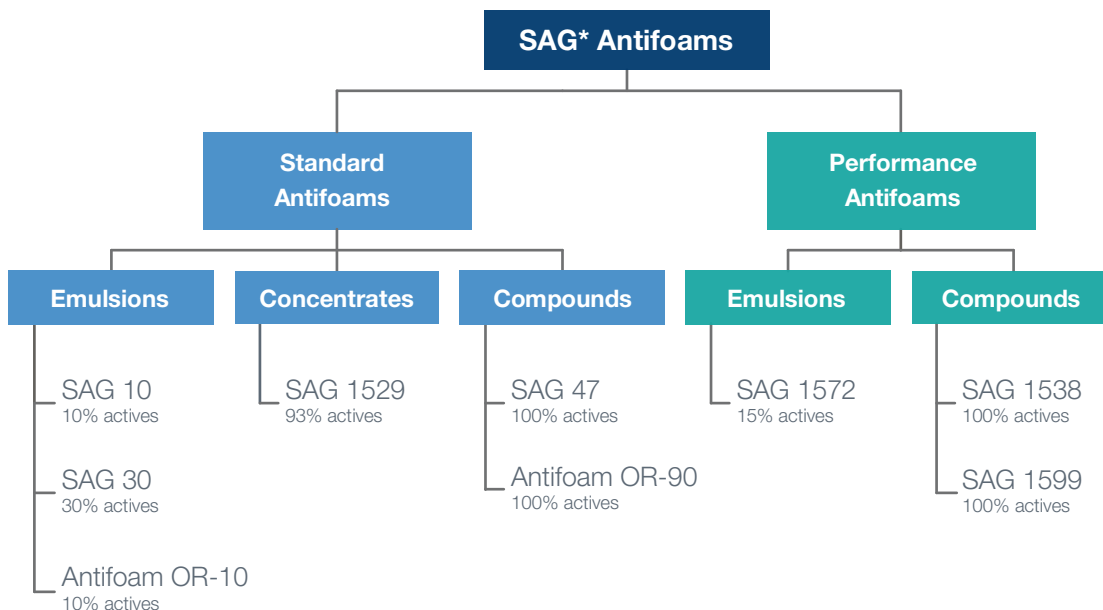
	Tank-Mix	In-Can pH range	Spreading	Uptake	Rainfastening	
Silwet L-77 AG Spray Adjuvant	yes	6.5 - 7.5	•••••	•••	•••••	High performance superspreader
Silwet 408 Spray Adjuvant	yes	6.5 - 7.5	•••••	•••	•••••	High performance superspreader, EC, SL, WDG
Silwet 806 Spray Adjuvant	yes	6.5 - 7.5	•••••	••	•••••	Low foaming superspreader
Silwet ECO Spreader (OMRI APPROVED)	yes	6.5 - 7.5	•••••	••	••	Superspreader for Organic Farming
Silwet 560 Oil Soluble Spreader	yes		•••••	•	•	Spreader for oil-based formulations
Silwet 618 Spray Adjuvant	yes	6.5 - 7.5	•••	•	•	Spreader-wetter
Silwet 719 Spray Adjuvant	yes	6.5 - 7.5	••	••	•	Spreader-wetter
AgroSpred 100 Wetter	yes	6.5 - 7.5	••	•	•	Spreader-wetter
AgroSpred 730 Spreader	yes		•••	••••	•••	Silicone-MSO spreader-penetrant
Silwet 641 Concentrate	yes	6.5 - 7.5	•••	••	•	Adjuvant Concentrate for use with MSO
Silwet 625 Spray Adjuvant	yes		••	••••	••	Penetrant for tank-mix herbicides applications
Silwet HS-312 Spreader		3 - 12	•••••	••	••	pH-stable spreader
Silwet HS-429 Penetrant		4 - 9	•	•••••	•••	pH-stable penetrant for herbicides
Silwet HS-508 Penetrant		4 - 9	•	•••••	•••	pH-stable penetrant / co-adjuvant for herbicides
Silwet HS-604 Penetrant		4 - 10	•••	•••••	•••	pH-stable spreader-penetrant / co-adjuvant

Typical product data values should not be used as specifications. Assistance and specifications are available by contacting Momentive sales office. SL= soluble liquid - EC = emulsion concentrate - WDG = water dispersible granule

Momentive Antifoams

Key Features

- Excellent defoam time (knock-down)
- Up to 10 times faster than conventional antifoams
- Long lasting foam control performance (durability)
- Excellent compatibility and stability in Ag formulations
- Lower use rates than many silicone antifoams
- Cost-effective foam control
- EPA “Inert status”
- Available world-wide



SAG Antifoams

	SL	SC	EC	WDG	Defoaming	Durability	Stability	Dosage	EPA Approval ⁽¹⁾	
SAG 1572 Silicone Antifoam Emulsion	yes	yes	yes	yes	•••••	•••••	•••••	low	40CFR§180.920	15% actives antifoam emulsion
SAG 1538 Silicone Antifoam			yes	yes	•••••	•••••	•••	very low	40CFR§180.910	100% actives antifoam compound
SAG 1599 Silicone Antifoam	yes		yes	yes	•••••	•••••	•••••	very low	40CFR§180.960	100% actives, for AMS formulations
SAG 10 Silicone Antifoam Emulsion	yes	yes			•••	•••	•••	medium	40CFR§180.920	10% actives antifoam emulsion
SAG 30 Silicone Antifoam Emulsion	yes	yes			•••	•••	•••	medium	40CFR§180.920	30% actives antifoam emulsion
SAG 1529 Foam Control Agent			yes	yes	•••	•••	•••	medium	40CFR§180.910	93% actives antifoam concentrate
SAG 47 Silicone Antifoam Compound			yes	yes	•••	•••	•••	low	40CFR§180.910	100% actives antifoam compound
Antifoam OR-10 Silicone Antifoam Emulsion (OMRI APPROVED)	yes	yes			•••	•••	•••	medium	40CFR§180.910	10% actives antifoam compound
Antifoam OR-90 Silicone Antifoam Emulsion (OMRI APPROVED)			yes	yes	•••	•••	•••	low	40CFR§180.910	100% actives antifoam compound

(1) The components meet the requirements of U.S. EPA regulation and are therefore exempt from tolerances in food when used as an inert ingredient in agricultural applications in accordance with the other conditions of that regulation.

Typical product data values should not be used as specifications.

Assistance and specifications are available by contacting Momentive sales office.

SL= soluble liquid - SC= suspension concentrate - EC = emulsion concentrate - WDG = water dispersible granule

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.

Location	Emergency Service Provider	Emergency Contact Number
Mainland U.S., Puerto Rico	CHEMTREC	1.800.424.9300
Alaska, Hawaii	CHEMTREC	1.800.424.9300
Canada,	CHEMTREC	1.800.424.9300
Europe, Israel	NCEC	+44(0) 1235239670
Middle East	NCEC	+44(0) 1235239671
Asia/Pacific (except China)	NCEC	+44(0) 1235239670
China	NCEC	+86.10.5100.3039
Latin America (except Brazil)	NCEC	+44(0) 1235239670
Brazil	SOS Cotec	08000111767 or 08007071767
All other locations world wide	NCEC	+44(0) 1235239670
At sea	Radio U.S. Coast Guard in US waters	
	NCEC in International waters	+44(0) 1235239670

For Health related calls, contact Momentive Performance Materials at +1.518.233.2500 (English only).

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



Customer Service Centers

Worldwide Hotline

4information@momentive.com

+1 614 986 2495 / T +1 800 295 2392

North America

**Silicones – Fluids, UA, Silanes,
Specialty Coatings, RTV and Elastomers**

T +1 800 523 5862 / +1 800 334 4674

F +1 304 746 1654 / +1 304 746 1623

**Consumer Sealants/
Construction Sealants and Adhesives**

T +1 877 943 7325

F +1 304 746 1654

Latin America

South America

T +55 11 4534 9650

F +55 11 4534 9660

Mexico and Central America

T +52 55 2169 7670

F +52 55 2169 7699

Europe, Middle East, Africa and India

T +00 800 4321 1000 / +40 21 3111848

Pacific

China

T +800 820 0202 / +86 21 3860 4892

Japan

T +0120 975 400 / +81 276 20 6182

F +81 276 31 6259

Korea

T +82 2 6201 4600

F +82 2 6201 4601

Malaysia

T +60 3 9206 1555

F +60 3 9206 1533

Thailand

T +66 2207 3456

F +66 2207 3488

DISCLAIMER: 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.

*SAG, Silwet, Silwet L-77, and AgroSpreed are trademarks of Momentive Performance Materials Inc.

Momentive and the Momentive logo are trademarks of Momentive Performance Materials Inc.



22 Corporate Woods Boulevard
Albany, NY 12211 USA
momentive.com