

MOMENTIVETM
inventing possibilities



Silwet^{*} Adjuvants
SAG^{*} Antifoams



ENHANCED
AGROCHEMICALS
EFFICACY



Index

4 . . . Momentive
has been First

7 . . . Overview

7 . . . SAG* Antifoams

8 . . . Momentive Adjuvants

10 . . . Momentive Antifoams

Momentive Performance Materials has been First:

To commercialize silicone adjuvants for tank-mix applications in agriculture (Silwet L-77* AG Spray Adjuvant)

To develop and 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

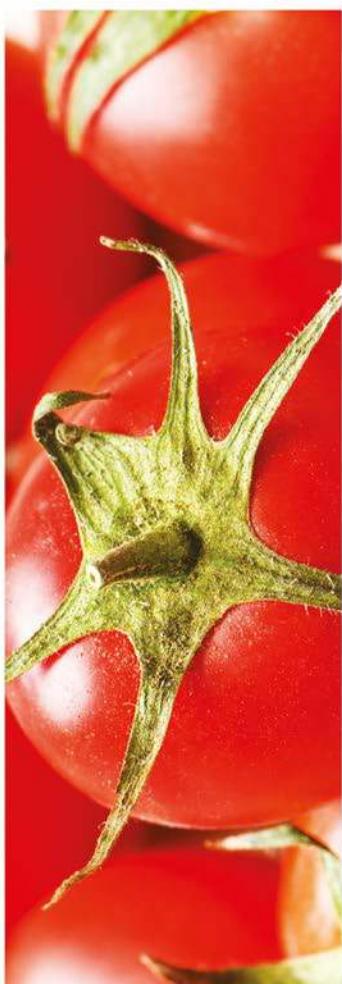
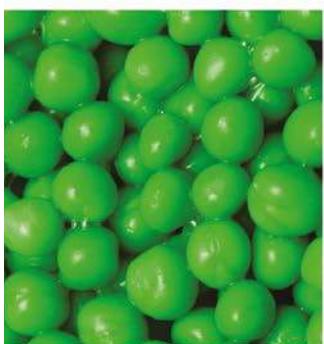
Non-Crop Products

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 specialty products marketed under the Silwet®, AgroSpred® 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 AgroSpred adjuvants, being first in the market, 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 excellent candidates 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 enable 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

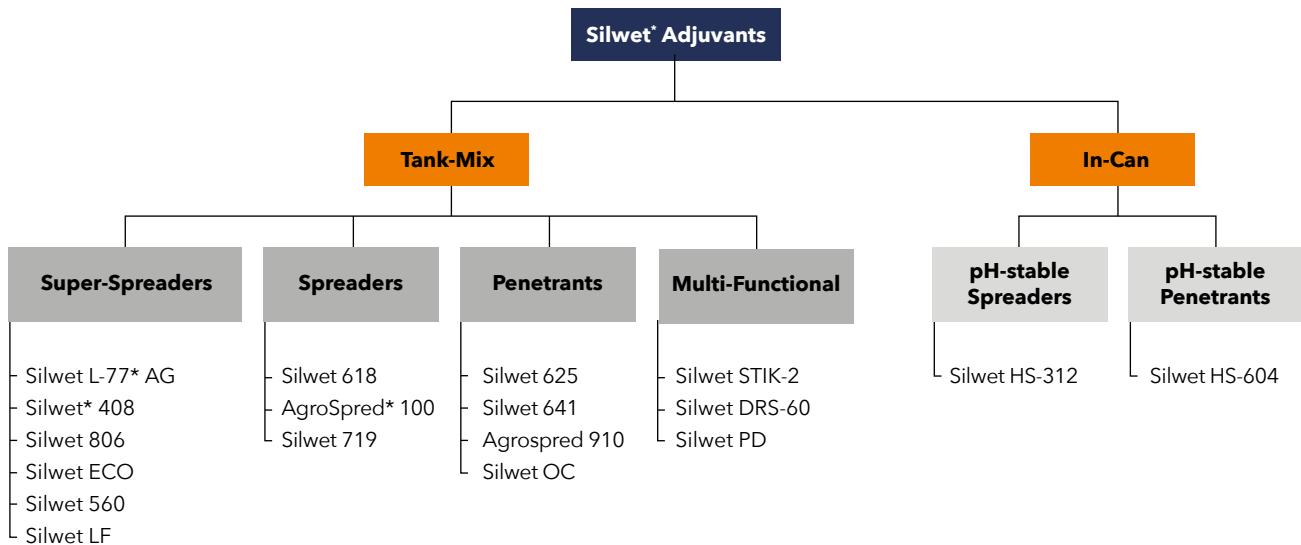
Rainfastness to lower pesticide wash-off and waste

Lower use levels than non-silicone surfactants

pH stable for use in In-Can formulations (Silwet HS)

Excellent compatibility and stability in Ag formulations

Available world-wide



Silwet & AgroSpred Adjuvants for In-Can and Tank Mix

	In-Can pH range	Spreading	Uptake	Rainfastening	EPA approval	
Silwet L-77 AG Spray Adjuvant	6.5 - 7.5	•••••	•••	•••••	EPA 40 CFR §180.910	High performance superspread
Silwet 408 Spray Adjuvant	6.5 - 7.5	•••••	•••	•••••	EPA 40 CFR §180.910	High performance superspread, EC, SL, WDG
Silwet 806 Spray Adjuvant	6.5 - 7.5	•••••	••	•••••	EPA 40 CFR §180.910	Low foaming superspread
Silwet ECO Spreader (OMRI LISTED)	6.5 - 7.5	•••••	••	•••••	EPA 40 CFR §180.910	Superspread for Organic Farming
Silwet 560 Oil Soluble Spreader	-	•••••	•	•	EPA 40 CFR §180.910	Spreader for oil-based formulations
Silwet 618 Spray Adjuvant	6.5 - 7.5	•••	•	•	EPA 40 CFR §180.910	Spreader-wetter
Silwet 719 Spray Adjuvant	6.5 - 7.5	••	••	•	EPA 40 CFR §180.910	Spreader-wetter
AgroSpred 100 Wetter	6.5 - 7.5	••	•	•	EPA 40 CFR §180.910	Spreader-wetter
AgroSpred 910 Spreader	-	•••	•••	•••	EPA 40 CFR §180.910	Silicone-MSO spreader-penetrant
Silwet 641 Concentrate	6.5 - 7.5	••	••	•	EPA 40 CFR §180.910	Adjuvant Concentrate for use with MSO
Silwet OC Concentrate	6.5 - 7.5	••	••	•	EPA 40 CFR §180.910	Adjuvant Concentrate for use with crop oil
Silwet 625 Spray Adjuvant	6.5-7.5	•	•••	••	EPA 40 CFR §180.920	Penetrant for tank-mix herbicides applications
Silwet HS-312 Spreader	3 - 12	•••••	••	••	EPA 40 CFR §180.910	pH-stable spreader
Silwet HS-604 Penetrant	4 - 10	•••••	•••••	•••	EPA 40 CFR 180.920	pH-stable spreader-penetrant / co-adjuvant

Typical properties are average data and are not to be used as or to develop product specifications.
SL = soluble liquid - EC = emulsion concentrate - WDG = water dispersible granule

A high-magnification, blue-toned microscopic image showing numerous small, spherical bubbles of varying sizes, likely representing foam or emulsion structures. The bubbles are interconnected by thin, dark, wavy lines representing the foam's structure.

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

Emulsions

SAG 10 10% actives

SAG 30 30% actives

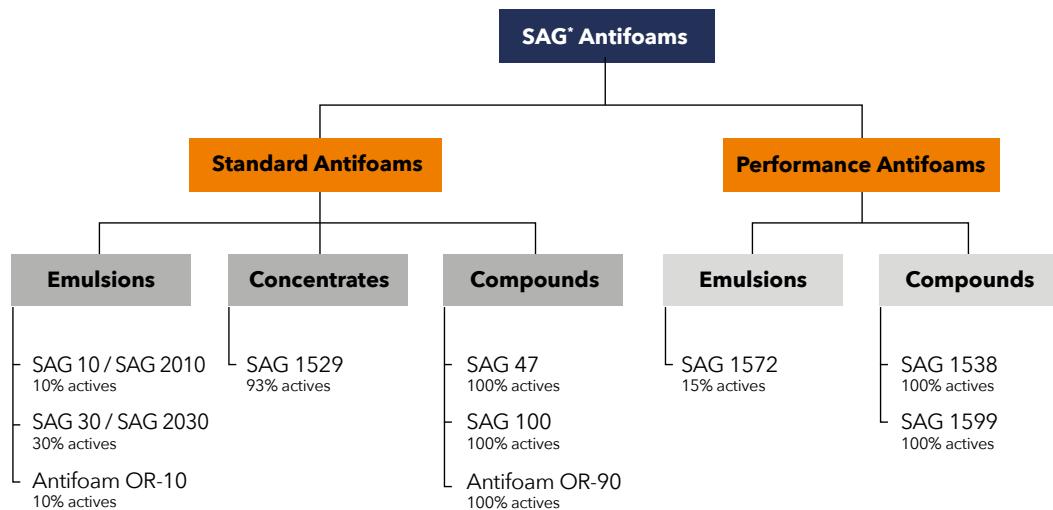
Antifoam OR-10 10% actives (OMRI LISTED)

SAG Antifoams

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⁾	15% actives antifoam emulsion
	YES	YES	YES	YES	•••••	•••••	•••••			
SAG 1572 Silicone Antifoam Emulsion	YES	YES	YES	YES	•••••	•••••	•••••	0.02 - 0.20%	40CFR§180.920	15% actives antifoam emulsion
SAG 1538 Silicone Antifoam			YES	YES	•••••	•••••	•••	0.01 - 0.10%	40CFR§180.910	100% actives antifoam compound
SAG 1599 Silicone Antifoam	YES		YES	YES	•••••	•••••	•••••	0.005 - 0.015%	EPA CFR 180.910	100% actives, for AMS formulations
SAG 10 Silicone Antifoam Emulsion	YES	YES			•••	•••	•••	0.25 - 1.0%	EPA CFR 180.910	10% actives antifoam emulsion
SAG 30 Silicone Antifoam Emulsion	YES	YES			•••	•••	•••	0.25 - 1.0%	EPA CFR 180.910	30% actives antifoam emulsion
SAG 1529 Foam Control Agent			YES	YES	•••	•••	•••		40CFR§180.910	93% actives antifoam concentrate
SAG 47 Silicone Antifoam Compound			YES	YES	•••	•••	•••	0.1 - 0.5%	EPA CFR 180.960	100% actives antifoam compound
SAG 100 Silicone Antifoam Compound			YES	YES	•••	•••	•••	0.1 - 0.5%	40CFR§180.960	100% actives antifoam compound
Antifoam OR-10 Silicone Antifoam Emulsion (OMRI LISTED)	YES	YES			•••	•••	•••	0.25 - 1.0%	40CFR§180.910	10% actives antifoam compound
Antifoam OR-90 Silicone Antifoam Emulsion (OMRI LISTED)			YES	YES	•••	•••	•••	0.1 - 0.5%	EPA CFR 180.960	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 properties are average data and are not to be used as or to develop product specifications.

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



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Patent Status

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