



Adsee®611



Next-generation adjuvant, offering
premium amine technology for
tank-mix applications

Nouryon

Adsee 611

Adsee 611 is our next generation adjuvant for crop protection applications. A highly optimized blend of a fatty amine polymer with a quaternary compound.

Why use Adsee 611?

- Proven efficacy with herbicide, fungicide and insecticide applications
- Qualifies for Eco-premium solution and helps to meet sustainability targets

Typical properties

Property	Value
Appearance	amber liquid
CMC	0.027 g/l
Contact angle ^{1 (o)}	66
Density at 20°C	0.976 g/ml
Flash point	>93.3°C
Moisture	max 1%
pH, 5% in water	6-7
Surface tension at 0.1 w/%	38 mN/m
TAE-EO	<1%
Wetting powder (0.1%, Draves, 25°C)	100 sec

Regulatory

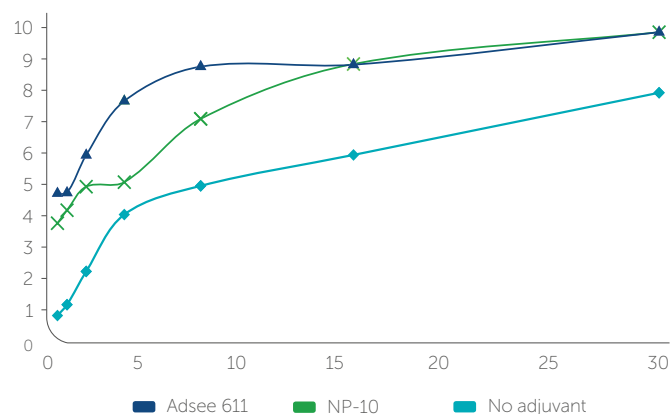
- Meets REACH polymer exemption
- TSCA compliant and ingredients listed under 40 CFR 180.920
- DSL, NZIoC, KECl, IECSC, TCSI listed

Herbicide studies

Bispyribac-Na on Barnyardgrass

The Bispyribac -sodium herbicidal activity treatments on Barnyardgrass have obvious adjuvant synergies

Percent weed control (fresh wt basis) at 20DAT vs g ai/ha (adjuvant at 0.1% v/v)



- The Bispyribac-sodium herbicidal activity on can be considerably increased by adding 0.1% Adsee 611
- Adsee 611 has a better knock-down effect than NP-10



Insecticide studies

Pymetrozine

25% WP on brown plant hopper

Treatment	LC ₉₀ (mg/L)	LC90 reduction
Pymetrozine (alone)	232.2	N/A
Adsee 611 (0.1% v/v)	142.3	38%
Nonylphenol 10EO (0.1% v/v)	209.9	9%

LC = lethal dose at which % of the population is killed

Summary Pymetrozine on brown plant hopper

- Improved efficacy with Adsee 611, better than NP-10



Nilaparvata lugens

Abamectin

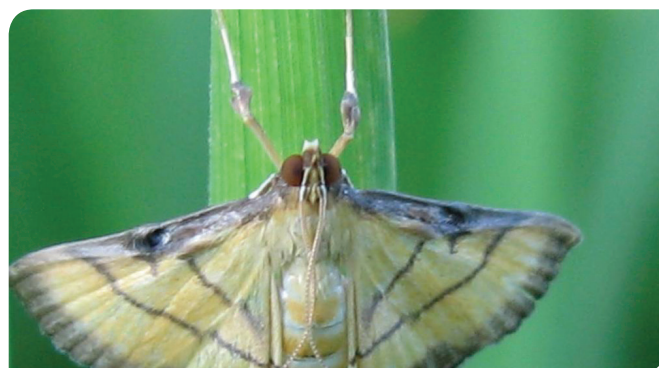
1.8% EC on rice leaf roller

Treatment	LC ₉₀ (mg/L)	LC90 reduction
Abamectin (alone)	0.124	0.47
Adsee 611 (0.1% v/v)	0.096	0.44
Nonylphenol 10EO (0.1% v/v)	0.093	0.57

LC = lethal dose at which % of the population is killed

Abamectin on rice leaf roller

- Improved efficacy with Adsee 611, better than NP-10



Cnaphalocrocis medinalis

Fungicide studies

Tricyclazole

5% EC on rice blast

Treatment	EC ₅₀ (mg/L)
Tricyclazole (alone)	18.3
Adsee 611 (0.1% v/v)	16.9

Summary Tricyclazole on rice blast

- Improved efficacy with Adsee 611, better than NP-10



Pyricularia oryzae

Azoxystrobin

5% EC on rice sheath blight

Treatment	LC ₅₀ (mg/L)
Azoxystrobin (alone)	24.8
Adsee 611 (0.1% v/v)	18.7

LC = lethal dose at which % of the population is killed

Summary Azoxystrobin on rice sheath blight

- Improved efficacy with Adsee 611, better than NP-10



Rhizoctonia solani

Use recommendations

- Adsee 611 is suggested to be used at level of 0.1% (v/v) for tank-mix applications
- Adsee 611 is low viscous liquid and mixes easily with water at normal temperature, it performs equally well in soft and hard water
- Due to its quaternary compound and if anionic components exist in the pesticide formulation(s), Adsee 611 is recommended to be mixed prior to spraying in order to avoid potential compatibility issues
- Although the data generated and the product designed for tank-mix applications, Adsee 611 can also be considered as in-can adjuvant

Conclusions

- Optimized blend for tank-mix applications
- Versatile and increases efficacy when added to variety of pesticides
- Robust and easy to handle
- Improves wetting, retention, humectancy and penetration
- Offers eco-premium* solution to existing benchmarks and supports sustainability targets

* An eco-premium solution is significantly better than the offer in the market in at least one mainstream criterion (toxicity, energy use, use of natural resources/raw materials, emissions and waste, land use, risks, health and well-being), and not significantly worse in any other criteria. Downstream benefits include a tangible sustainability benefit for our customers.

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Nouryon

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