

HELIOSOL®

The multi-purpose eco-adjuvant



Suitable for use in Organic Farming according to regulations (EU) n° 2018/848 and n° 2021/1165 ECOCERT inspection F-32600

FIRST AID

GENERAL ADVICE

The victim should lie down in a resting position, covered and kept warm.

In case of inhalation: move the victim to fresh air. Keep the victim at rest and keep him/her warm. If the symptoms persist, consult a doctor. In case of skin contact: wash with plenty of water and soap. If symptoms persist, consult a doctor. In case of eye contact: rinse immediately with plenty of water, including under the eyelids, for at least 15 minutes. If irritation develops and persists, consult a doctor. If swallowed: do NOT induce vomiting. Immediately call a doctor or a poison control centre. Rinse out mouth.

CHARACTERISTICS

HELIOSOL® is an eco-adjuvant for herbicide, fungicide, insecticide and growth regulator spray. It can be used in organic and conventional agriculture and is formulated on the basis of easily biodegradable pine derivatives (OECD 301 standard). Moreover, HELIOSOL® belongs to the "Fibi list of authorized inputs according to the Demeter specifications (Biodynamics)".

The addition of HELIOSOL® to the spray mixture improves the effectiveness of the associated product, whether it is a plant protection product with systemic, penetrating or contact action. Furthermore, due to the presence of compounds with a high odour power in its composition, HELIOSOL® can mask the odours of the plant protection products with which it is used as an adjuvant.

Thanks to its "drift limitation" label, HELIOSOL® is particularly well suited to low-volume strategies and reasoned doses.

Finally, its approval for all uses and all functions makes this eco-adjuvant particularly interesting.

- Improvement of the quality of the spray mixture
- Maintenance of the properties of the associated product
- Improved spray quality (limits drift)
- Improved retention
- Improved spreadability
- Improved penetration
- Reduction of leaching

TABLE OF USES (1/3)

USES	SPECIES	MAX. USE DOSE	MAX NUMBER OF APPLICATIONS PER USE	INTERVAL (no. of days)	STAGES OF APPLICATION	PHI (no. of days)	UNTREATED AQUATIC AREA	MAX NO. OF APPLICATIONS PER CROP
FUNGICIDE SPRAY ADJUVANT	Straw cereals, corn, rice, oilseeds, protein poppy seeds	0,4 l/ha	3 per year	14	BBCH 30-69	14		6
	Vine	0,4 l/ha	4 per year	10	BBCH 14-65	7		5
	Apple, citrus, stone fruits, nuts	1,6 l/ha	4 per year	10	BBCH 30-65	7		5
	Carrot, leafy cabbage, kohlrabi, head cabbage, lettuce, escarole, endive, chicory - root production, spinach, garlic, onion, shallots, tomatoes, peppers, aubergine, cucumber, courgettes, broccoli and melon (open field and under cover)	0,4 l/ha	4 per year	14	All stages except broccoli and melon (until BBCH 19)	3		5
	Potato	0,4 l/ha	5 per year	7	BBCH 33-47	10		5
	Industrial and fodder beetroot	0,4 l/ha	3 per year	15	Until BBCH 19	14		6
	Seed carriers: cereals, protein seeds, cruciferous oilseeds	0,4 l/ha	8 per year	7	All stages			8
	Seed carriers: sugar and fodder beet (open field and under cover)	0,8 l/ha	8 per year	7	All stages			8
	Seed carriers : corn	0,4 l/ha	8 per year	7	All stages			8
	Seed carrier: vegetable crops (open field and under cover)	2 l/ha	8 per year	7	All stages			8
	Seed carrier: fodder grasses	0,6 l/ha	8 per year	7	All stages			8
	Seed carrier: fodder legumes	0,8 l/ha	8 per year	7	All stages			8
	Ornamental crops	0,2 l/ha	10 per year		All stages			
	Vegetable beetroot	0,6 l/ha	4 per year		BBCH 10-49	30		
Blackberries	0,4 l/ha	per year		BBCH 01-87	7	5 m		
Ground cress	2 l/ha	8 per year		All stages	3			

ADAPTING APPLICATION STAGES/EARLY HARVEST PERIOD/UNTREATED AREAS ACCORDING TO THE RESTRICTIONS OF ASSOCIATED PLANT PROTECTION PRODUCTS

TABLE OF USES (2/3)

USES	SPECIES	MAX. USE DOSE	MAX NUMBER OF APPLICATIONS PER USE	INTERVAL (no. of days)	STAGES OF APPLICATION	PHI (no. of days)	UNTREATED AQUATIC AREA	MAX NO. OF APPLICATIONS PER CROP
HERBICIDE SPRAY ADJUVANT	Straw cereals, corn, rice, oilseeds, protein poppy seeds	1 l/ha	2 per year	14	BBCH 10-32	30		6
	Vine	1 l/ha	2 per year	14	Until BBCH 65	F		5
	Apple, citrus, stone fruits, nuts	1,5 l/ha	2 per year	14	Until BBCH 73	F		5
	Carrot, leafy cabbage, kohlrabi, head cabbage, lettuce, escarole, endive, chicory - root production, spinach, garlic, onion, shallots, tomatoes, peppers, aubergine, cucumber, courgettes, broccoli and melon (open field and under cover)	1 l/ha	2 per year	14	All stages except broccoli and melon (until BBCH 19)	30		5
	Intercropping, fallow	1 l/ha	1 per year					5
	Industrial and fodder beetroot	1 l/ha	2 per year	14	BBCH 10-19	30		6
	Seed carriers: cereals, protein seeds, cruciferous oilseeds	1 l/ha	8 per year	7	BBCH 10-79			8
	Seed carriers: sugar and fodder beet (open field and under cover)	2 l/ha	8 per year	7	All stages			8
	Seed carriers : corn	1 l/ha	8 per year	7	All stages			8
	Seed carrier: vegetable crops (open field and under cover)	2 l/ha	8 per year	7	All stages			8
	Seed carrier: fodder grasses	1,5 l/ha	8 per year	7	All stages			8
	Seed carrier: fodder legumes	2 l/ha	8 per year	7	All stages			8
	Okra	4 l/ha	3 per year		Until BBCH 73	30	5 m	
	Ornamental crops	1,5 l/ha	3 per year		All stages		5 m	
	Ground cress	1,5 l/ha	3 per year		All stages	30	5 m	
	Vegetable beetroot	1 5 l/ha	5 per year		BBCH 10-39	10		
Blackberries	1,5 l/ha		14	Until BBCH 73		5 m		

ADAPTING APPLICATION STAGES/EARLY HARVEST PERIOD/UNTREATED AREAS ACCORDING TO THE RESTRICTIONS OF ASSOCIATED PLANT PROTECTION PRODUCTS

TABLE OF USES (3/3)

USES	SPECIES	MAX. USE DOSE	MAX NUMBER OF APPLICATIONS PER USE	INTERVAL (no. of days)	STAGES OF APPLICATION	PHI (no. of days)	UNTREATED AQUATIC AREA	MAX NO. OF APPLICATIONS PER CROP
INSECTICIDE SPRAY ADJUVANT	Straw cereals, corn, rice, oilseeds, protein poppy seeds	0,4 l/ha	3 per year	14	BBCH 10-79	14		6
	Vine	0,4 l/ha	1 per year		BBCH 01-65	7		5
	Apple, citrus, stone fruits, nuts	1,6 l/ha	3 per year	14	BBCH 30-65	7		5
	Carrot, leafy cabbage, kohlrabi, head cabbage, lettuce, escarole, endive, chicory - root production, spinach, garlic, onion, shallots, tomatoes, peppers, aubergine, cucumber, courgettes, broccoli and melon (open field and under cover)	0,4 l/ha	2 per year	14	All stages except broccoli and melon (until BBCH 19)	3		5
	Potato	0,4 l/ha	1 per year		BBCH 10-90	14		5
	Industrial and fodder beetroot	0,4 l/ha	3 per year	15	Until BBCH 19	14		6
	Seed carriers: cereals, protein seeds, cruciferous oilseeds	0,4 l/ha	8 per year	7	All stages			8
	Seed carriers: sugar and fodder beet (open field and under cover)	0,8 l/ha	8 per year	7	All stages			8
	Seed carriers : corn	0,4 l/ha	8 per year	7	All stages			8
	Seed carrier: vegetable crops (open field and under cover)	2 l/ha	8 per year	7	All stages			8
	Seed carrier: fodder grasses	0,6 l/ha	8 per year	7	All stages			8
	Seed carrier: fodder legumes	0,8 l/ha	8 per year	7	All stages			8
	Okra	1,2 l/ha	4 per year		All stages	14		
	Ornamental crops	0,16 l/ha	10 per year		All stages		5 m	
	Vegetable beetroot	0,6 l/ha	4 per year		BBCH 10-49	30		
Blackberries	0,4 l/ha	10 per year		BBCH 09-79	14	5 m		
Ground cress	2 l/ha	5 per year		All stages	1			
GROWTH REGULATING SPRAY ADJUVANT	Straw cereals, corn, rice, oilseeds, protein poppy seeds	1 l/ha	1 per year		BBCH 10-39	30	5 m	6
	Seed carriers: cereals, protein seeds, cruciferous oilseeds	1,5 l/ha	8 per year	7	BBCH 10-79		5 m	8
Attractive flowering crop (decree of 20/11/2021): Possible use and depending on the associated plant protection products								

ADAPTING APPLICATION STAGES/EARLY HARVEST PERIOD/UNTREATED AREAS ACCORDING TO THE RESTRICTIONS OF ASSOCIATED PLANT PROTECTION PRODUCTS

PERSONAL PROTECTIVE EQUIPMENT (PPE)

CHARACTERISTICS OF PPE	PROTECTION OF THE USER					PROTECTION OF THE WORKER
	MIXTURE / LOADING	APPLICATION WITH LANCE (GREENHOUSE OR OPEN FIELD) APPLICATION WITH BACKPACK (OPEN FIELD)*			CLEANING	
		WITHOUT INTENSE CONTACT WITH THE VEGETATION		INTENSE CONTACT WITH THE VEGETATION		
		LOW CROPS < 50 cm	HIGH CROPS > 50 cm	HIGH AND LOW CROPS		
NITRILE GLOVES CERTIFIED TO NF ISO EN 374-1/A1 reusable (EN 16523-1+A1 (type A)) single use (ISO EN 374-2 (types A, B or C))	Reusable	Reusable	Reusable	Reusable	Reusable	Reusable
PPE CLOTHING complies with ISO EN 27065/A1	✓				PPE clothing AND partial PPE	✓
PARTIAL PPE Apron or long-sleeved jacket category III type PB3 certified to EN 14605+A1	OR				OR	
CHEMICAL PROTECTION SUIT category III type 3 or 4 certified to EN 14605+A1:2009	Type 3 (a) or Type 4 (b) (c)	Type 4 with hood (b)	Type 4 with hood Any type of application	Type 3 with hood Type 4 with hood (b)	Type 3 (a) (c) Type 4 (b) (c)	
LENSES or FACIAL SCREEN EN 166:2002 certified (CE, mark 2)						
RESPIRATORY PROTECTION Half mask (EN 140:1998) equipped with a filter P3 (EN 143:2008) or A2P3 (EN 14387:2008)	✓					
BOOTS certified to EN 13832-3:2006		✓	✓			

(a) According to the level of protection recommended in the application phase / (b) Nitrile gloves certified to EN 373-3 in case of contact with the treated crop
(c) * Table applicable with additional PPE for application on backside

CHARACTERISTICS OF PPE	PROTECTION OF THE USER					PROTECTION OF THE WORKER	
	MIXTURE / LOADING	APPLICATION WITH SPRAYER WITH BOOM OR PNEUMATIC SPRAYER					CLEANING
		UPWARD SPRAYING		DOWNWARD SPRAYING			
		TRACTOR WITH CABIN	TRACTOR WITHOUT CABIN	TRACTOR WITH CABIN	TRACTOR WITHOUT CABIN		
NITRILE GLOVES CERTIFIED TO NF ISO EN 374-1/A1 reusable (EN 16523-1+A1 (type A)) single use (ISO EN 374-2 (types A, B or C))	Reusable	For single use only (carried and stored outside the cabin)	For single use only	For single use only (carried and stored outside the cabin)	For single use only	Reusable	
PPE CLOTHING complies with ISO EN 27065/A1	✓	✓	✓	✓	PPE clothing AND partial PPE	✓	
PARTIAL PPE Apron or long-sleeved jacket category III type PB3 certified to EN 14605+A1							
CHEMICAL PROTECTION SUIT category III type 3 or 4 certified to EN 14605+A1:2009		Type 4 with hood (b)		Type 4 with hood (b)			
LENSES or FACIAL SCREEN EN 166:2002 certified (CE, mark 2)							
RESPIRATORY PROTECTION Half mask (EN 140:1998) equipped with a filter P3 (EN 143:2008) or A2P3 (EN 14387:2008)	✓						
BOOTS certified to EN 13832-3:2006							

(a) In case of intervention on the equipment during the application phase / (b) Only for pneumatic spraying
(c) Nitrile gloves certified to EN 373-3 in case of contact with the treated crop

Return used personal protective equipment (PPE) in a translucent bag to your ECO EPI partner distributor or use a company authorised to collect and dispose of dangerous products.

COMPOSITION

Adjuvant solution: 665 g/l Terpineol (CAS n°8000-41-7). Emulsifiable concentrate (EC)

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, light yellow liquid

Odour: Pine

pH at 20°C: 5.5 to 7.5

Solubility in water: Easily dispersible.

Stability: Stable down to -10°C

Biodegradability: Easily biodegradable according to OECD 301F method

HOMOLOGATION

MA France : N°7200313

Uses : Adjuvant for herbicide, fungicide, insecticide and growth regulator sprays

Registered doses :

- See table of uses

Approved adjuvant functions:

- Improved spray quality (limits drift).
- Maintenance of the properties of the associated product.
- Improved spray quality (anti-foaming effect).
- Improved retention, spreading and penetration.
- Reduction of leaching.

Ecotoxicity : Not classified

Fee on diffuse pollution: 0€/L

Residents' safety distance (RSD) :

Protection of bystanders and residents (as defined in Regulation (EU) No 284/2013):

- For use as an adjuvant for herbicide sprays (all crops), growth regulators (all crops), as well as insecticide and fungicide sprays on carrots, cabbage, lettuce, escarole, endive, chicory, spinach, garlic, onions, shallots, tomatoes, peppers, aubergines, cucumbers, courgettes, wheat, barley, corn, sweetcorn, millet, rice, protein peas, forage peas, field beans, potatoes, parsley, radishes, melons, turnips, beans, peas, squash, strawberries, leeks, celery, salsify, artichokes, forage legumes, forage grasses, beetroot, lupin, flax, poppy, sesame, rape, mustard, borage, camelina, turnip rape, hemp, castor bean, oats and sorghum, maintain a distance of at least **3 metres** from the sprayer boom:
 - o the space frequented by the people present at the time of treatment;
 - o the area likely to be frequented by residents.
- unless the associated plant protection product requires more restrictive application conditions or a wider untreated zone.
- For use as an adjuvant for insecticide sprays on grapevines and fruit trees and for fungicide sprays on grapevines and fruit trees, maintain a distance of at least 10 metres between the last row treated and:
 - o the space frequented by the people present at the time of treatment;
 - o the area likely to be frequented by residents
- unless the associated plant protection product requires more restrictive application conditions or a wider untreated zone.
- For use as an adjuvant for insecticide and fungicide sprays on tuberous parsley, watercress and other shoots, maintain a minimum distance of 10 metres between the spray boom and:
 - o the space frequented by the people present at the time of treatment;
 - o the area likely to be frequented by residents
- unless the associated plant protection product requires more restrictive application conditions or a wider untreated zone.

Environmental protection (milieu, fauna and flora)

Protection of fauna

- SPe 3 : To protect aquatic organisms, a 5-metre no-treatment zone must be respected in relation to water place, unless the associated plant protection product requires a wider no-treatment zone.

PACKAGING AND LOGISTICAL INFORMATION



**CAN OF
5L**

Article code : 3144
Recycling : ADIVALOR

No. of CUs per pallet: 36



**JERRYCAN
OF 20L**

Article code : 3143
Recycling : ADIVALOR
No. of CUs per carton: 4
No. of CUs per pallet: 128



This pictogram indicates that the packaging of this product can be collected by the distributors partners of the ADIVALOR network

LEGAL INFORMATION

ACTION PIN – ZI de Cazalieu – CS 60030 - 40260 CASTETS (FRANCE) – Tél : +335 58 55 07 00 – www.action-pin.fr.
HELIOSOL[®], MA No. 7200313.

Composition: 665 g/l Terpineol (CAS No. 8000-41-7). For authorized uses, doses, conditions and restrictions of use: refer to the product label or consult the product sheet on www.helioterpen.fr. Dangerous, respect the precautions of use.
Registration holder: ACTION PIN. HELIOSOL[®] is a registered trademark of ACTION PIN.



CAUTION. EUH208 Contains dipentene. May produce an allergic reaction. EUH401 Follow instructions for use to avoid risks to humans and the environment. H319 Causes severe eye irritation.

Before any use, make sure that it is necessary. Whenever possible, favour alternative methods and products with the lowest risk for human and animal health and for the environment, in accordance with the principles of integrated

**PRODUCT FOR PROFESSIONALS : USE PHYTOPHARMACEUTICAL PRODUCTS WITH CARE. BEFORE USE,
READ THE LABEL AND PRODUCT INFORMATION.**

FTFR.006/2022.14