



# SAFETY DATA SHEET

## Novaluron 100 Acetamiprid 80 EC

Revision Date 08-May-2020

Version 2

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### Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### Product identifier

## Novaluron 100 Acetamiprid 80 EC

Pure substance/mixture Mixture

Formula EC

#### Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Insecticide  
Uses advised against No information available

#### Details of the supplier of the safety data sheet

Supplier Address ADAMA Makhteshim Ltd  
PO Box 60  
Beer Sheva 8410001 Israel

#### For further information, please contact

Email address SDS@ADAMA.COM

#### Emergency Telephone

Emergency Telephone ADAMA Makhteshim: + 972 8 6560800/801 ; + 972 8 6296713/714  
ADAMA Agan : + 972 8 8515341

### Section 2: HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

Acute toxicity - Oral	Category 4 - (H302)
Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitization	Category 1 - (H317)
Reproductive toxicity	Category 1B - (H360)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

#### Label Elements

#### Hazard pictograms



**Signal word**

Danger

**Hazard Statements**

H302 - Harmful if swallowed  
 H317 - May cause an allergic skin reaction  
 H318 - Causes serious eye damage  
 H335 - May cause respiratory irritation  
 H360 - May damage fertility or the unborn child  
 H410 - Very toxic to aquatic life with long lasting effects

**Precautionary Statements**

P102 - Keep out of reach of children  
 P201 - Obtain special instructions before use  
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
 P270 - Do not eat, drink or smoke when using this product  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P501 - Dispose of contents/ container to an approved waste disposal plant

**Other Hazards**

No information available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	Weight-%	CAS No	EC No	GHS Classification	M-Factor
Novaluron	7 - 11	116714-46-6		Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	M=1 M=1000
Acetamiprid	6 - 9	135410-20-7	603-921-1	Acute Tox. 4 (H302) Aquatic Chronic 3 (H412)	
N-Methyl-2-pyrrolidone	26 - 28	872-50-4	212-828-1	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Repr. 1B (H360) STOT SE 3 (H335)	
Poly(oxy-1,2-ethanediyl),.alpha.(C10-14)alkyl-.omega.-hydroxy, phosphate	11 - 13	68585-36-4		Skin Corr. 1B (H314)	
Triethanolamine	1 - 3	102-71-6	203-049-8	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT RE 2 (H373)	

Full text of H- and EUH-phrases: see section 16

### Section 4: FIRST AID MEASURES

First aid measures

<b>General advice</b>	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!.
<b>Inhalation</b>	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.
<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.
<b>Self-protection of the first aider</b>	Use personal protective equipment as required.

**Most important symptoms and effects, both acute and delayed**

**Symptoms** None known.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

## Section 5: FIRE-FIGHTING MEASURES

**Extinguishing media**

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

No information available.

**Special hazards arising from the substance or mixture**

No specific hazard known.

**Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus  
In the event of fire and/or explosion do not breathe fumes.

## Section 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**

Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak.

**For emergency responders**

Use personal protection recommended in Section 8.

**Environmental precautions**

Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering

drains.

**Methods and material for containment and cleaning up**

**Methods for cleaning up**

Take up mechanically, placing in appropriate containers for disposal.

**Reference to other sections**

**Other Information**

See also section 8,13

**Section 7: HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling**

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems.

**General Hygiene Considerations**

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions**

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

**Specific end use(s)**

**Risk Management Methods (RMM)**

The information required is contained in this Material Safety Data Sheet.

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**National occupational exposure limits**

Chemical Name	European Union	United Kingdom	France	Spain	Germany
N-Methyl-2-pyrrolidone 872-50-4		STEL: 75 ppm STEL: 309 mg/m <sup>3</sup> TWA: 10 ppm TWA: 40 mg/m <sup>3</sup> Skin	TWA: 40 mg/m <sup>3</sup> TWA: 10 ppm STEL: 80 mg/m <sup>3</sup> STEL: 20 ppm	S* STEL: 20 ppm STEL: 80 mg/m <sup>3</sup> TWA: 10 ppm TWA: 40 mg/m <sup>3</sup>	TWA: 20 ppm TWA: 82 mg/m <sup>3</sup> Ceiling / Peak: 40 ppm Ceiling / Peak: 164 mg/m <sup>3</sup> Skin
Triethanolamine 102-71-6				TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> Ceiling / Peak: 20 mg/m <sup>3</sup>
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
N-Methyl-2-pyrrolidone 872-50-4			Skin STEL: 80 mg/m <sup>3</sup> TWA: 40 mg/m <sup>3</sup>	TWA: 10 ppm TWA: 40 mg/m <sup>3</sup> STEL: 20 ppm STEL: 80 mg/m <sup>3</sup> Skin	TWA: 5 ppm TWA: 20 mg/m <sup>3</sup> Skin
Triethanolamine 102-71-6		TWA: 5 mg/m <sup>3</sup>		TWA: 5 mg/m <sup>3</sup>	TWA: 0.5 ppm TWA: 3.1 mg/m <sup>3</sup>

Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
N-Methyl-2-pyrrolidone 872-50-4	Skin STEL 20 ppm STEL 80 mg/m <sup>3</sup> TWA: 10 ppm TWA: 40 mg/m <sup>3</sup>	Skin STEL: 40 ppm STEL: 160 mg/m <sup>3</sup> TWA: 20 ppm TWA: 80 mg/m <sup>3</sup>	STEL: 80 mg/m <sup>3</sup> TWA: 40 mg/m <sup>3</sup> Skin	TWA: 5 ppm TWA: 20 mg/m <sup>3</sup> Skin STEL: 20 ppm STEL: 80 mg/m <sup>3</sup>	TWA: 25 ppm TWA: 101 mg/m <sup>3</sup> Skin
Triethanolamine 102-71-6	STEL 1.6 ppm STEL 10 mg/m <sup>3</sup> TWA: 0.8 ppm TWA: 5 mg/m <sup>3</sup>	STEL: 20 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>		TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>

**Exposure controls**

**Engineering Controls** Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment**

**Eye/face protection** Tight sealing safety goggles.

**Hand Protection** Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minutes Permeability time (permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm).

**Body Protection** Gloves made of plastic or rubber, Suitable protective clothing, Rubber boots, Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact, Wear chemical resistant clothing such as gloves, apron, boots or whole bodysuits made from neoprene, as appropriate.

**Respiratory protection** Use only with adequate ventilation.

**General Hygiene Considerations** When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Keep away from food, drink and animal feeding stuffs. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Take off all contaminated clothing and wash it before reuse. Wear suitable gloves and eye/face protection.

**Environmental exposure controls** Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water. Prevent product from entering drains.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

**Physical and Chemical Properties**

Property	Values	Method	Remarks
<b>Appearance</b>			
Physical state	: liquid		
Color	: brown		
Odor	: characteristic		
Odor threshold	: No data available		
pH	: 2.3 - 3.3	EPA-OPPTS 830.7000	1 % aqueous solution
Melting point/freezing point °C	: -		Not Applicable
Boiling point/boiling range °C	: No data available		
Flash point °C	: 110	CIPAC MT 12	CC (closed cup)
Evaporation rate	: Not Applicable		
Flammability (solid, gas)	: Not applicable for liquids		
Upper/lower flammability or explosive limits	: No data available		
Vapor pressure kPa	: -		Not Applicable
Vapor density	: No data available	EPA-OPPTS 830.7300	

<b>Relative density</b>	: 1.05 - 1.15	22 °C
<b>Solubility(ies) mg/l</b>	: -	Not Applicable
<b>Partition Coefficient (n-octanol/water) Log Pow</b>	:	See Section 12 for more information
<b>Autoignition temperature °C</b>	: No data available	
<b>Decomposition temperature °C</b>	: No data available	
<b>Kinematic viscosity mm<sup>2</sup>/s 40 °C</b>	: -	No data available
<b>Explosive properties</b>	: Not an explosive	EEC A.14
<b>Oxidizing properties</b>	: No data available	
<b>Other Information</b>		
<b>Bulk density g/ml</b>	:	Not Applicable
<b>Surface tension mN/m</b>	: -	No data available

## Section 10: STABILITY AND REACTIVITY

### Reactivity

Not available.

### Chemical stability

Stable under normal conditions.

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

Exposure to air or moisture over prolonged periods.

### Incompatible Materials

No information available

### Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

## Section 11: TOXICOLOGY INFORMATION

### Information on toxicological effects

#### Acute toxicity

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
<b>Oral LD50 mg/kg</b>	: 300 - 2000	Rat	OECD 423	
<b>Dermal LD50 mg/kg</b>	: > 2000	Rat	OECD 402	
<b>Inhalation LC50 mg/l/4h</b>	: 1.61	Rat	OECD 403	Maximum attainable concentration
<b>Skin corrosion/irritation</b>	: Non-irritating to the skin	Rabbit	OECD 404	
<b>Serious eye damage/eye irritation</b>	: Irritating to eyes	Rabbit	OECD 405	
<b>Respiratory/skin sensitization</b>	: Skin sensitizer	Guinea pig	OECD 406	

#### Chronic toxicity

#### Germ cell mutagenicity

**Chemical Name**  
Novaluron : Not classified

Acetamiprid	:	Not classified
<b>Carcinogenicity</b>		
<b>Chemical Name</b>	:	.
Novaluron	:	Not Carcinogenic
Acetamiprid	:	Not Carcinogenic
<b>Reproductive toxicity</b>		
<b>Chemical Name</b>	:	.
Novaluron	:	Not toxic for the reproductive system
Acetamiprid	:	Not toxic for the reproductive system
<b>STOT - single exposure</b>		
<b>Chemical Name</b>	:	.
Novaluron	:	No data available
Acetamiprid	:	No data available
<b>STOT - repeated exposure</b>		
<b>Chemical Name</b>	:	.
Novaluron	:	No data available
Acetamiprid	:	No data available
<b>Aspiration hazard</b>		
<b>Chemical Name</b>	:	.
Novaluron	:	No data available
Acetamiprid	:	No data available

**Section 12: ECOLOGICAL INFORMATION**

**Toxicity**

**Aquatic toxicity**

<b>Acute toxicity</b>	<b>Values</b>	<b>Species</b>	<b>Method</b>	<b>Remarks</b>
<b>Fish 96-hour LC50 mg/l</b>	: 1.06	Poecilia reticulata	OECD 203	
<b>Crustacea 48-hour EC50 mg/l</b>	: 0.04	Daphnia magna	OECD 202	
<b>Algae 72-hour EC50 mg/l</b>	: > 100	Selenastrum capricornutum	OECD 201	
<b>Other plants EC50 mg/l</b>	:			No data available

<b>Chronic aquatic toxicity</b>	<b>Values</b>	<b>Species</b>	<b>Method</b>	<b>Remarks</b>
<b>Fish NOEC mg/l</b>	: No data available			
<b>Crustacea NOEC mg/l</b>	: No data available			
<b>Algae NOEC mg/l</b>	: No data available			
<b>Other plants NOEC mg/l</b>	: No data available			

**Terrestrial Toxicity**

<b>Birds Oral LD50 mg/kg</b>	<b>Chemical Name</b>	<b>Values</b>	<b>Species</b>	<b>Method</b>	<b>Remarks</b>
	Novaluron	: > 2000	Bobwhite quail	US EPA 71-1	
	Acetamiprid	: 98	Mallard duck		

**Bees Oral LD50 µg/bee**

<b>Chemical Name</b>	<b>Values</b>	<b>Species</b>	<b>Method</b>	<b>Remarks</b>
Novaluron	: > 100	Apis mellifera	EPPO 170	
Acetamiprid	: 14.53			Oral

**Persistence and degradability**

<b>Abiotic Degradation</b>	<b>Values</b>	<b>Method</b>	<b>Remarks</b>
<b>Water DT50 days</b>			

**Chemical Name**

Novaluron : ---- No data available  
 Acetamiprid : 3.6 - 5.8

**Soil DT50 days**

**Chemical Name**

Novaluron : ---- No data available  
 Acetamiprid : 2.9 Field

**Biodegradation**

**Chemical Name**

Novaluron : No data available  
 Acetamiprid : No data available

**Bioaccumulative potential**

<b>Partition Coefficient (n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow</b>	<b><u>Values</u></b>	<b><u>Method</u></b>	<b><u>Remarks</u></b>
<b>Chemical Name</b>			
Novaluron	: 4.3	OECD 107	
Acetamiprid	: 0.80	OECD 117	pH 5.4

**Bioconcentration factor (BCF)**

**Chemical Name**

Novaluron : ---- No data available  
 Acetamiprid : ---- No bioaccumulation potential

**Mobility in soil**

<b>Adsorption/Desorption</b>	<b><u>Values</u></b>	<b><u>Method</u></b>	<b><u>Remarks</u></b>
<b>Chemical Name</b>			
Novaluron	: 9598		KOC
Acetamiprid	: 71.1 - 138.4		KOC

**Results of PBT and vPvB assessment**

The components in this formulation do not meet the criteria for classification as PBT or vPvB

**Other adverse effects**

No information available.

**Section 13: DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**Waste from residues/unused products** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Do not reuse container.

**Other Information** Waste codes should be assigned by the user based on the application for which the product was used.

**Section 14: TRANSPORTATION INFORMATION**

**IMDG/IMO**

**UN/ID No \*** 3082  
**Proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Novaluron, Acetamidrid )  
**Hazard Class** 9  
**Packing Group** III  
**Marine pollutant** Yes  
**Special precautions for user**

**RID/ADR**

**UN/ID No \*** 3082  
**Proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Novaluron, Acetamidrid )  
**Hazard Class** 9  
**Packing Group** III  
**Environmental hazard** Yes  
**Special precautions for user**

**ICAO/IATA**

**UN/ID No \*** 3082  
**Proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Novaluron, Acetamidrid )  
**Hazard Class** 9  
**Packing Group** III  
**Environmental hazard** Yes  
**Special precautions for user**  
**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not Applicable



\* Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less for solids.

**Section 15: REGULATORY INFORMATION**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Section 16: OTHER INFORMATION**

**Full text of H-Statements referred to under sections 2 and 3**

- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H373 - May cause damage to organs through prolonged or repeated exposure if inhaled
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- H302 - Harmful if swallowed
- H412 - Harmful to aquatic life with long lasting effects
- H314 - Causes severe skin burns and eye damage
- H360D - May damage the unborn child
- H335 - May cause respiratory irritation

**Revision Note**

Changes made to the last version are labeled with this sign \*\*\*.

**List of Acronyms**

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road  
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
CAS Number - Chemical Abstracts Service number  
EC Number - EINECS and ELINCS Number  
EINECS - European Inventory of Existing Commercial Substances  
ELINCS - European List of notified Chemical Substances  
IATA - International Air Transport Association  
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air  
IMDG - International Maritime Dangerous Goods  
LC50 - Lethal Concentration to 50 % of a test population  
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)  
OECD - Organization for Economic Co-operation and Development  
PBT - Persistent, Bioaccumulative and Toxic substance  
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail  
STOT - Specific Target Organ Toxicity  
vPvB - Very Persistent and Very Bioaccumulative

**Disclaimer**

**The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**