SAFETY DATA SHEET

Cormoran 180 EC

Revision Date 10-Nov-2019 **Version** 1 **Product No** INS00118-27
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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Cormoran 180 EC

Synonyms Novaluron 100 Acetamiprid 80 EC
Pure substance/mixture Mixture

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

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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)	

Section 4: FIRST AID MEASURES

First aid measures

General advice	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!.
Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.
Eye contact	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.
Ingestion	Do NOT induce vomiting. Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.
Self-protection of the first aider	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/m³ TWA: 10 ppm TWA: 40 mg/m³ Skin	TWA: 40 mg/m³ TWA: 10 ppm STEL: 80 mg/m³ STEL: 20 ppm	S* STEL: 20 ppm STEL: 80 mg/m³ TWA: 10 ppm TWA: 40 mg/m³	TWA: 20 ppm TWA: 82 mg/m³ Ceiling / Peak: 40 ppm Ceiling / Peak: 164 mg/m³ Skin
Triethanolamine 102-71-6				TWA: 5 mg/m³	TWA: 5 mg/m³ Ceiling / Peak: 20 mg/m³

Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
N-Methyl-2-pyrrolidone 872-50-4			Skin STEL: 80 mg/m³ TWA: 40 mg/m³	TWA: 10 ppm TWA: 40 mg/m³ STEL: 20 ppm STEL: 80 mg/m³ Skin	TWA: 5 ppm TWA: 20 mg/m³ Skin
Triethanolamine		TWA: 5 mg/m³		TWA: 5 mg/m³	TWA: 0.5 ppm

102-71-6					TWA: 3.1 mg/m³
Chemical Name	**Austria**	**Switzerland**	**Poland**	**Norway**	**Ireland**
N-Methyl-2-pyrrolidone 872-50-4	Skin STEL 20 ppm STEL 80 mg/m³ TWA: 10 ppm TWA: 40 mg/m³	Skin STEL: 40 ppm STEL: 160 mg/m³ TWA: 20 ppm TWA: 80 mg/m³	STEL: 80 mg/m³ TWA: 40 mg/m³ Skin	TWA: 5 ppm TWA: 20 mg/m³ Skin STEL: 20 ppm STEL: 80 mg/m³	TWA: 25 ppm TWA: 101 mg/m³ Skin
Triethanolamine 102-71-6	STEL 1.6 ppm STEL 10 mg/m³ TWA: 0.8 ppm TWA: 5 mg/m³	STEL: 20 mg/m³ TWA: 5 mg/m³		TWA: 5 mg/m³ STEL: 10 mg/m³	TWA: 5 mg/m³

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**
Appearance				
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		
Relative density	:	1.05 - 1.15	EPA-OPPTS 830.7300	22 °C
Solubility(ies) mg/l	:	-		Not Applicable
Partition Coefficient (n-octanol/water) Log Pow	:			See Section 12 for more information
Autoignition temperature °C	:	No data available		
Decomposition temperature °C	:	No data available		
Kinematic viscosity mm2/s 40 °C	:	-		No data available
Explosive properties	:	Not an explosive	EEC A.14	
Oxidizing properties	:	No data available		

Other Information

Bulk density g/ml	:		Not Applicable
Surface tension mN/m	:	-	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

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

Chronic toxicity

Germ cell mutagenicity
Chemical Name

Novaluron : Not classified
Acetamiprid : Not classified

Carcinogenicity .
Chemical Name
Novaluron : Not Carcinogenic
Acetamiprid : Not Carcinogenic

Reproductive toxicity .
Chemical Name
Novaluron : Not toxic for the reproductive system
Acetamiprid : Not toxic for the reproductive system

STOT - single exposure
Chemical Name
Novaluron : No data available
Acetamiprid : No data available

STOT - repeated exposure
Chemical Name
Novaluron : No data available
Acetamiprid : No data available

Aspiration hazard
Chemical Name
Novaluron : No data available
Acetamiprid : No data available

Section 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity

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

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

Terrestrial Toxicity
Birds Oral LD50 mg/kg
Chemical Name

Novaluron	:	> 2000	Bobwhite quail	US EPA 71-1	
Acetamiprid	:	98	Mallard duck		

Bees Oral LD50 µg/bee
Chemical Name

Novaluron	:	> 100	Apis mellifera	EPPO 170	
Acetamiprid	:	14.53			Oral

Persistence and degradability

Abiotic Degradation	**Values**	**Method**	**Remarks**

Water DT50 days
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

Partition Coefficient (n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow **Chemical Name**	Values	Method	Remarks
Novaluron	: 4.3	OECD 107	
Acetamiprid	: 0.80	OECD 107	25 °C

Bioconcentration factor (BCF)
Chemical Name

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

Mobility in soil

Adsorption/Desorption **Chemical Name**	Values	Method	Remarks
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, Acetamiprid)
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, Acetamiprid)
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, Acetamiprid)
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