Owi ECL RevelBlot® Femto

Safety Data Sheet

Reference: 258498

For RESEARCH USE ONLY

SECTION 1: PRODUCT IDENTIFICATION

Product Name: Owi ECL RevelBlot® Femto
Product ID: OZYB002-1000

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture :

The product is not classified as hazardous in accordance with the provisions of Regulation (EC) 1272/2008 (CLP). Nevertheless, containing hazardous substances at a concentration such as must be declared in Section 3, the product requires a safety data sheet containing appropriate information, in accordance with Regulation (EU) 2020/878.
Classification and danger indication: --

2.2 Labelling elements :

Hazard labelling in accordance with Regulation (EC) 1272/2008 (CLP) and subsequent amendments and adaptations
Hazard pictograms: --
Disclaimers: --
Hazard statements: **EUH210** Safety Data Sheet available upon request.
Precautionary Statements: --

2.3 Other hazards :

Based on the available data, the product does not contain PBT or vPvB substances in percentage ≥ to 0.1%.
The product does not contain substances with endocrine disrupting properties in a concentration ≥ 0.1%.

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

3.1 Mixture:

Content:

Identification	x = Conc.	% Classification (EC) 1272/2008 (CLP)

SORTS
INDEX FINGER - 2 ≤ x < 2.5 Eye Irrit. 2 H319, Skin Irrit. 2 H315
EC 201-064-4
CAS 77-86-1
AMPD
INDEX - 1 ≤ x < 1.5 Met. Corr. 1 H290, Eye Irrit. 2 H319, Skin Irrit. 2 H315
EC 204-100-7
CAS 115-69-5
ETHYLENE GLYCOL
INDEX 603-027-00-1 1 ≤ x < 1.5 Acute Tox. 4 H302, STOT RE 2 H373
EC 203-473-3 Oral ETA: 500 mg/kg
CAS 107-21-1

The full text of the danger indictions (H) is given in section 16 of the fact sheet.

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SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid

EYES: Remove any contact lenses. Wash immediately and thoroughly with water for at least 15 minutes, opening the eyelids well. Consult a doctor if the problem persists.
SKIN: Remove contaminated clothing. Wash thoroughly with water. If irritation persists, seek medical attention. Wash contaminated clothing before reuse.
INHALATION: Immediately take the person out into the open air. In case of breathing difficulties, call a doctor immediately.
INGESTION: Seek immediate medical attention. Induce vomiting only on the instructions of the doctor. Do not administer anything orally if the person has lost consciousness.

4.2 Main symptoms and effects, acute and delayed

No specific information is available on the symptoms and effects caused by the product.

4.3 Indication of any immediate medical care and special treatments needed

Information not available

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing means

APPROPRIATE EXTINGUISHING MEANS
The means of extinguishing are the traditional ones: carbon dioxide, foam, powder and nebulized water.
INAPPROPRIATE EXTINGUISHING MEANS
None in particular.

5.2 Specific hazards resulting from the substance or mixture

EXPOSURE HAZARDS IN THE EVENT OF FIRE
Avoid breathing in combustion products.

5.3 Advice for firefighters

GENERAL INFORMATION
Cool the containers with water jets to prevent the product from decomposing and releasing substances that are dangerous to health. Make sure to always use complete fire protection equipment. Collect extinguishing water that must not be discharged into the sewers. Dispose of contaminated water used for extinguishing and residues from the fire in accordance with current standards.
EQUIPMENT
Normal firefighting clothing, self-contained open-circuit compressed air respirator (EN 137), flame arrestor suit (EN469), flame retardant gloves (EN 659) and firefighters' boots (HO A29 or A30).

SECTION 6: ACTIONS TO BE TAKEN IN THE EVENT OF ACCIDENTAL DISPERSAL

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Stem the leak in the absence of danger.
Ensure that protective devices (including personal protective devices listed in section 8 of the Safety Data Sheet) are worn to prevent contamination of skin, eyes and personal clothing. This information applies to both work personnel and emergency response.

6.2 Precautions for the protection of the environment

Prevent the product from being discharged into sewers, surface water or groundwater.

6.3 Containment and Cleaning Methods and Equipment

Vacuum the spilled product into a suitable container. Assess the compatibility of the container to be used with the product, refer to section 10.
Absorb the product using an inert absorbent material.
Provide sufficient ventilation of the drainage area. The disposal of contaminated materials shall be carried out in accordance with the provisions of point 13.

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6.4 Reference to other topics

Any information on personal protection and disposal can be found in sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Handle the product after consulting all other sections of this safety data sheet. Avoid dispersion of the product in the environment.
Do not eat, drink or smoke during use. Remove contaminated clothing and protective devices before accessing dining areas.

7.2 Conditions for safe storage, including possible incompatibilities

Store only in the original container. Store closed containers in a well-ventilated place, away from direct sunlight. Keep containers away from any incompatible materials/materials, refer to section 10.

7.3 Specific End-Use(s)

Information not available

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTIVE EQUIPMENT

8.1 Control Parameters

DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Limit values for occupational exposure to chemical agents in France. ED 984 - INRS
RCMP	Ελλάδα	Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ``σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιγόνους παράγοντες κατά την εργασία``»
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie W sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
SVN	Slovenija	Pravilnik o varovanju delavčev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19)
TUR	Türkiye	Kimyasal Maddelerle Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
HAD	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2022

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Type	State	TWA/8h		STEL/15min		Notes/Observations
		Mg/m3	Ppm	Mg/m3	Ppm	
AGW	DEU	26	10	52	20	SKIN
MAK	DEU	26	10	52	20	SKIN
VLA	ESP	52	20	104	40	SKIN
OEL	FRA	52	20	104	40	SKIN
TLV	RCMP	125	20	125	50	
OEL	ITA	52	20	104	40	SKIN
VLE	PRT	52	20	104	40	SKIN
NDS/NDSCh	POL	15		50		SKIN
MV	SVN	52	20	104	40	SKIN
ESD	TUR	52	20	104	40	SKIN
WEL	GBR	52	20	104	40	SKIN
OEL	HAD	52	20	104	40	SKIN
TLV-ACGIH			25		50	
TLV-ACGIH				10		INHALA

Legend:
(C) = CEILING; INHALA = Respirable part; RESPIR = Respirable part; THORAC = Thoracic part.

8.2 Exposure controls

As the use of appropriate technical measures should always take precedence over the use of personal protective devices, ensure that good ventilation is ensured in the workplace by means of an appropriate extraction system.
For the selection of personal protective devices if necessary, seek advice from chemical suppliers.
Personal protective devices must be marked with the CE certification mark which attests to their compliance with the standards in force.

HAND PROTECTION
Protect your hands with Category III work gloves.
The following should be taken into account when choosing the material of work gloves (see EN 374): compatibility, degradation, permeability time.
In the case of preparations, the strength of the work gloves must be tested before use insofar as it cannot be established a priori. The wear time of the gloves depends on the duration of the exposure.

SKIN PROTECTION
Use long-sleeved workwear and safety shoes for professional use of category I (ref. Regulation 2016/425 and EN ISO 20344 standard). Wash with soap and water after removing protective clothing.

EYE PROTECTION
It is recommended to wear airtight protective glasses (see EN ISO 16321).

RESPIRATORY PROTECTION
The use of respiratory protective equipment is necessary in the event that the technical measures adopted are not sufficient to limit the exposure of personnel to the threshold values taken into account. It is recommended to use a mask equipped with a type A filter, the class of which (1, 2 or 3) must be chosen according to the limit concentration of use. (see EN 14387).
In the event that the substance in question is odourless or in the event that the odour threshold is higher than the corresponding TLV-TWA and in the event of an emergency, use an open-circuit self-contained compressed air respirator (ref. EN 137) or an external air intake respirator (ref. EN 138). To choose the correct respiratory protection device, refer to EN 529.

ENVIRONMENTAL EXPOSURE CONTROL
Emissions from production processes, including those from ventilation equipment, must be controlled to ensure compliance with environmental protection regulations.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on essential physical and chemical properties

Essential physical and chemical properties	Value	News
Physical condition	Liquid	
Colour	From transparent to slightly purplish	
Smell	Odourless	
Melting point or freezing	Not available	
Initial boiling point	Not available	
Inflammability	Not available	
Lower Explosion Limit	Not available	
Upper Explosion Limit	Not available	
Flash Point	> 60°C	
Self-flammability temperature	Not available	
Decomposition Temperature	Not available	
ph	9,7	
Kinematic viscosity	Not available	
Solubility	Not available	
Partition coefficient: n-octanol/water	Not available	
Steam pressure	Not available	
Density and/or Relative Density	Not available	
Relative vapour density	Not available	
Particle characteristics	Not applicable	

9.2 Other information

9.2.1 Information on physical hazard classes

Information not available

9.2.2 Other Security Features

Information not available

SECTION 10: STABILITY AND RESPONSIVENESS

10.1 Reactivity

No particular danger of reaction with other substances under normal conditions of use.

ETHYLENE GLYCOL
In air, absorbs moisture. Decomposes at a temperature above 200°C/392°F.

10.2 Chemical stability

The product is stable under normal use and storage.

10.3 Potential for Hazardous Reactions

Under normal use and storage conditions, no hazardous reactions are foreseeable.

ETHYLENE GLYCOL
Risk of explosion in contact with: perchloric acid. May react dangerously with: chlorosulfuric acid, sodium hydroxide, sulfuric acid, phosphorus pentasulfide, chromium(III) oxide, chromyl chloride, potassium perchlorate, potassium dichromate, sodium peroxide, aluminum. Forms explosive mixtures with: air.

10.4 Conditions to avoid

None in particular. However, observe the precautions applicable to chemical products.

ETHYLENE GLYCOL
Avoid exposure to: heat sources, open flames.

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10.5 Incompatible materials

Information not available

10.6 Hazardous decomposition products

ETHYLENE GLYCOL
May release: hydroxyacetaldehyde, ethanedial, acetaldehyde, methane, carbon monoxide, hydrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

In the absence of experimental toxicological data on the product, the possible health hazards of the product were assessed on the basis of the properties of the substances contained, according to the criteria laid down in the reference standard for classification.
Therefore, consider the concentration of any hazardous substances listed in Section 3 to assess the toxicological effects induced by exposure to the product.

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, kinetics, mechanism of action and other information
Information not available
Information on likely routes of exposure
ETHYLENE GLYCOL
WORKERS: inhalation; skin contact

POPULATION: inhalation of ambient air; skin contact with products containing the substance.

Delayed and immediate effects, and chronic effects of short- and long-term exposure

ETHYLENE GLYCOL
When ingested, initially stimulates the central nervous respiratory system, followed by a phase of depression. May cause kidney damage, with anuria and uremia. Symptoms of overexposure include vomiting, drowsiness, difficulty breathing, and seizures. The lethal dose for humans is approximately 1.4 ml/kg.

Interactive effects
Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Unclassified (no significant components)
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	Unclassified (no significant components)
SORTS	
LD50 (Oral):	5000 mg/kg rat
AMPD	
LD50 (Oral):	17000 mg/kg rat
ETHYLENE GLYCOL	
LD50 (Dermal):	9530 mg/kg Rabbit
LD50 (Oral):	> 2000 mg/kg Rat
ETA (Oral):	500 mg/kg estimate from Table 3.1.2 of Annex I to CLP (Data used to calculate the estimate of the acute toxicity of the mixture)

SKIN CORROSION / SKIN IRRITATION
Does not meet the classification criteria for this hazard class

SEVERE EYE DAMAGE/EYE IRRITATION
Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITIZATION
Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY
Does not meet the classification criteria for this hazard class

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CARCINOGENICITY
Does not meet the classification criteria for this hazard class

ETHYLENE GLYCOL
The available studies do not show any carcinogenic power. At the end of a 2-year carcinogenesis study, conducted by the US
National Toxicology Program (NTP), in which ethylene glycol was administered in the diet, no "overt carcinogenic activity" was observed in male and female B6C3F1 rats (NTP, 1993).

REPRODUCTIVE TOXICITY
Does not meet the classification criteria for this hazard class

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE
Does not meet the classification criteria for this hazard class

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE
Does not meet the classification criteria for this hazard class

SUCTION HAZARD
Does not meet the classification criteria for this hazard class

11.2 Information on other hazards
According to the available data, the product does not contain substances on the main European lists of potential or suspected endocrine disruptors with effects on human health, which are currently being evaluated.

SECTION 12: ECOLOGICAL INFORMATION

Soil or vegetation, alert the authorities immediately.

12.1 Toxicity
Information not available

12.2 Persistence and degradability
ETHYLENE GLYCOL

Water solubility 1000 - 10000 mg/l

Rapidly degradable

12.3 Potential for bioaccumulation
ETHYLENE GLYCOL

Distribution coefficient: n-octanol/water -1.36

12.4 Mobility in the ground
Information not available

12.5 PBT and vPvB assessment results
Based on the available data, the product does not contain PBT or vPvB substances in percentage ≥ to 0.1%.

12.6 Endocrine disrupting properties
According to the available data, the product does not contain substances on the main European lists of potential or suspected endocrine disruptors with effects on the environment under evaluation.

12.7 Other adverse effects
Information not available

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SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Reuse if possible. Product residues should be considered as non-hazardous special waste.
Disposal must be entrusted to a company approved for the treatment of waste, in compliance with national regulations and any local regulations in force.
CONTAMINATED PACKAGING
Contaminated packaging must either be recovered or disposed of in accordance with national waste treatment regulations.

SECTION 14: TRANSPORTATION INFORMATION

The product is not to be considered dangerous according to the current provisions on the road transport of dangerous goods (A.D.R.), on transport by rail (RID), sea (IMDG Code) and air transport (IATA).

14.1 UN number or identification number
Not applicable

14.2 UN Shipping Credentials
Not applicable

14.3. Transport hazard class(es)
Not applicable

14.4 Packing Group
Not applicable

14.5 Environmental hazards
Not applicable

14.6 Special precautions to be taken by the user
Not applicable

14.7 Bulk shipping in accordance with IMO instruments
Irrelevant information

SECTION 15: REGULATORY INFORMATION

This product is not classified according to European Union regulations. European labelling in accordance with EC directives.

15.1 Substance- or mixture-specific safety, health and environmental regulations/legislation
Seveso category - Directive 2012/18/EU: None

Restrictions on the product or substances contained in accordance with Annex XVII Regulation (EC) 1907/2006
No

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors not applicable

Substances on the Candidate List (Art. 59 REACH)
Based on the available data, the product does not contain SVHC substances in percentage ≥ to 0.1%.

Substances subject to authorisation (Annex XIV REACH)
No

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Substances subject to the export notification requirement Regulation (EU) 649/2012:
No

Substances subject to the Rotterdam Convention:
No

Substances subject to the Stockholm Convention:
No
Health checks
Information not available

15.2. Chemical safety assessment
No chemical safety assessment of the mixture/substances listed in Section 3 has been conducted.

SECTION 16: OTHER INFORMATION

Text of the safety marks (H) cited in sections 2-3 of the data sheet:
Met. Corr. 1 Corrosive substance or mixture corrosive to metals, Category 1
Acute Tox. 4 Acute Toxicity, Category 4
STOT RE 2 Specific Target Organ Toxicity - Repeated Exposure, Category 2
Eye Irrit. 2 Eye Irritation, Category 2
Skin Irrit. 2 Skin Irritation, Category 2
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H373 Suspected risk of serious organ effects from repeated or prolonged exposure.
H319 Causes severe eye irritation.
H315 Causes skin irritation.
EUH210 Safety Data Sheet available upon request.
LEGEND:
- ADR: European Agreement concerning the Carriage of Dangerous Goods on the Road
- CAS: Chemical Abstract Service Number
- EC50: Concentration having an effect on 50% of the population subjected to the tests
- EC: Identification number in the European System of Existing Substances (ESIS)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived level with no effect
- EmS: Emergency Schedule
- ETA: Acute Toxicity Estimate
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- IATA DGR: International Air Transport Association Regulations for the Transport of Dangerous Goods
- IC50: Immobilization concentration of 50% of the population subjected to the tests
- IMDG: International Maritime Code for the Transport of Dangerous Goods
- IMO: International Maritime Organization
- INDEX: Identification number in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- OEL: Workplace Exposure Level
- PBT: Persistent, bio-accumulative and toxic according to REACH
- PEC: Predictable Environmental Concentration
- PEL: Foreseeable Level of Exposure
- PNEC: Predicted no-effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulations for the International Carriage of Dangerous Goods by Train
- TLV: Threshold Limit Value
- TLV PIC: Concentration that must not be exceeded at any time during exposure at work.
- TWA: Weighted Average Exposure Limit
- TWA STEL: Short-Term Exposure Limit
- VOC: Volatile Organic Compound

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- vPvB: Very persistent and bioaccumulative according to REACH
- WGK: Wassergefährdungsklassen (Deutschland).

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