Owi ECL RevelBlot® Pico

Safety Data Sheet (SDS)
Regulation (EC) No 1907/2006

Reference: 258499

FOR RESEARCH ONLY

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Owi ECL RevelBlot® Pico
Product ID: OZYB001-2500
I.N.R.S emergency call number: 01 45 42 59 59

SECTION 2: HAZARD IDENTIFICATION

Specific indication of risks to humans and the environment
CAREFUL! Avoid exposure to this product during pregnancy. Contains substances that can cause birth defects.

Solution A (Luminol)
Contains substances that can damage the following organs: kidneys, lungs, nervous system, genital system, liver, respiratory system, skin, eyes, central nervous system or cornea (contact lenses can also be damaged).

Routes of entry: contact with the eye or skin.
Potential acute health risks: minor hazard if ingested, swallowed or inhaled.

Solution B (Peroxide)
Contains substances that can damage the following organs: cardiovascular system, skin, eyes, contact lenses or cornea.
Routes of entry: contact with skin, eye; inhalation or ingestion.
Potential acute health risks: minor danger in case of contact with the eye (irritation), ingestion. Non-corrosive and non-irritating to the skin. Not dangerous if inhaled. Non-irritating and non-corrosive to the lungs.
Potential chronic health risks:

- Carcinogenic risks: no data available
- Mutagenic risks: no data available
- Teratogenic risks: no data available
- Pathologies that can be aggravated by overexposure: no aggravation of pathologies occurring to overexposures is known

SECTION 3: COMPOSITION AND COMPONENT INFORMATION

Only components classified as hazardous and exceeding 1% or classified as carcinogenic and exceeding 0.1% are described in this section.

Solution A (Luminol)

Ingredient Name	CAS RN	%	EC number	Symbol	Classification – R-Phrases
Luminol	521-31-3	0,1-1	208-309-4	Xi	R36/37/38
Component 2	Unavailable	0,1-1	Unavailable	--	Not subject to DSD controls*
Base Tris	77-86-1	3-5	201-064-4	Xi	R36/37/38
Ethylene glycol	107-21-1	1-3	203-473-3	Xn	R21/22, R36/37/38
Hydrochloric acid	7647-01-0	0,01	231-595-7	C	R34-37

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Solution B (Peroxide)

Ingredient Name	CAS RN	%	EC number	Symbol	Classification – R-Phrases
Sodium perborate	10486-00-7	0,1-1	239-172-9	O, Xn	RR8, R22, 36/37/38
Sodium Acetate	127-09-3	0,1-1	204-823-8	--	--
Acetic acid	64-19-7	0,1-1	200-580-7	C	R10, R21, R35

*DSD : Dangerous Substances Directive (Directive 67/548/CEE)

SECTION 4: FIRST AID MEASURES

After inhalation

If inhaled, take to fresh air. If breathing becomes difficult, give oxygen. If breathing stops, perform artificial respiration. Consult a doctor.

After skin contact

In case of contact, clean the skin immediately with soap and plenty of water. Remove contaminated clothing or footwear. Clean these clothes before putting them back on. Clean shoes thoroughly before putting them back on. Consult a doctor.

After contact with the eye

If contact occurs, check and remove contact lenses, clean eyes immediately with plenty of water for at least 15 minutes. Consult a physician if irritation occurs.

After ingestion

Do NOT induce vomiting unless under the supervision of a physician. Do not give anything by mouth to an unconscious person. If a significant amount of the product has been swallowed, call a doctor immediately.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing means

Small fire: use dry chemical powder.
Large fire: use spray water jets, atomized water or foam

Special protective equipment for firefighting

Wear self-contained breathing equipment and protective clothing to prevent contact with skin and eyes.

Product flammability

Solution A (luminol): non-flammable.
Solution B (peroxide): can be combustible at high temperatures.

Fire hazards in the presence of other substances

Non-flammable in the event of impacts, in the presence of oxidizing, reducing or organic materials, metals, acids or bases.
Due to the large amount of water present in this product, it can only be combustible after partial or complete evaporation.

Special Notes on Fire Hazards

Solution A (luminol): if heated to decomposition, the product emits acidic and irritating smoke (ethylene glycol).

Solution B (peroxide): a flammable and combustible substance. Can be set on fire in case of heating, in the presence of sparks or flames. The vapours can form explosive mixtures with air. The vapours can reach an ignition source and cause a flashback. The majority of vapours are heavier than air. Vapours spread across the ground and accumulate in sunken areas or enclosed spaces (sewers, basements, or tanks). Risk of steam explosion indoors, outdoors or in sewers. Some materials can polymerize explosively when heated or in the event of a fire. Sewer run-

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offs can cause a fire or explosion hazard. Containers can explode when heated. Many liquids are lighter than water (Stable Peroxide Buffer Component 3).

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

Individual precautionary procedure(s)

Wear protective goggles, gown, gloves and a respirator mask against steam. Ensure that the respirator used is certified as compliant.

Precautions for environmental protection

Absorb with inert material and place in a suitable waste container. Neutralize the solution with dilute acetic acid. Complete the cleanup by spreading water on the contaminated surface and allow discharge through the sewer system. Make sure that the concentration of the product present does not exceed the VLCT level (TLV). Check VLCT (VLE) on this SDS.

Cleaning Methods

Dilute with water and blot, or absorb with an inert material. Place in an appropriate waste container. Complete the cleanup by spreading water on the contaminated surface and disposing of the water according to local and regional regulations.

SECTION 7: ACTIONS TO BE TAKEN IN THE EVENT OF ACCIDENTAL DISPERSAL

Manipulation

Avoid breathing in the vapours or any contact with the droplets of the mists. Wash thoroughly after handling.

Storage

Store in a dry and temperate place. Store in a tightly sealed container. Keep refrigerated at 4°C.

Intended End Use(s)

Consult the user manual for intended and appropriate uses. Or contact the supplier for specific uses.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTIVE EQUIPMENT

Occupational exposure limits

Product Name / Component	Exposure limit values
Luminol	Not available
Component 2 Solution	Not available
Sorts	Not available
Ethylene glycol	VMEi: 20 ppm or 52 mg.m3, VLCT[ii] (or TLV[iii]): 40 ppm or 104 mg.m3 [INRS, France, 2004]
Hydrochloric acid	VLCTii (or TLV[iii]): 5 ppm or 7.6 mg.m3 [INRS, France, 2006]
Sodium perborate	Not available
Acetic acid	VLCTii (or TLV[iii]): 10 ppm or 25 mg.m3 [INRS, France, 1982]

i: VME: average exposure limit values ii:
VLCT: short-term limit values
iii: TLVs: Exposure Limit Values

Collective emergency resources

Safety shower and eye wash. Use adequate ventilation so that air concentrations are low

General hygiene measures

Wash well after handling.

Personal protective equipment

Respiratory protection : The normal and intended conditions of use of the product do not require the use of a respirator, if exposure levels are kept below established limits.
Skin protection : Personal protective equipment for the body must be appropriate for the task being performed and the risks involved, and approved by an expert before handling this product.

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Eye protection : Wear protective eyewear against chemical splashes.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical Condition: Liquid
Color: Clear
pH: luminol (solution A): basic – peroxide (solution B): 5
Boiling/condensing point: The lowest known value is 100 °C (water).
Freezing/Melting Point: Can start solidifying from -0.1°C according to data for Milli-Q water
Vapour pressure: the highest known value is 2.3 kPa at 20°C (Milli-Q water)
Dispersion properties: see solubil+lity in water, methanol and acetone
Solubility:
Luminol: soluble in water, methanol and acetone, cold or hot. Very poorly soluble in di-ethyl ether and n-octanol.
Peroxide: soluble in methanol, di-ethyl ether, acetone; partially soluble in hot or cold water.

SECTION 10: STABILITY AND RESPONSIVENESS

Stability: stable at normal temperatures and pressures
Hazardous curing: absent

SECTION 11: STABILITY AND RESPONSIVENESS

Toxicity to animals

Product Name	Acute toxicity LD50*	Component Name	Cash	Dosage mg/kb
Solution A (Luminol)	Oral	Ethylene Glycol	Cat	1650
	Skin	Ethylene Glycol	Rabbit	9530
Solution B (Peroxide)	Oral	Sodium perborate	Rat	1200
		Ethylene Glycol	Mouse	1060
		Sodium Acetate	Rat	3530
			Mouse	6891
		Acetic acid	Rat	3310
			Mouse	4960
	Skin	Acetic acid	Rat	1060
	steam	Acetic acid	Mouse	5620 ppm heur(s)

*LD50: The LD50 is the **lethal dose** for 50% of the tested animal population to die.

Chronic effects on humans
Solution A (Luminol: Ethylene Glycol):
- Carcinogenic Effects: Rated NO by NIOSH. Rated A4 (not classifiable for humans or animals) by ACGIH
- Developmental toxicity: Classified as PROVEN for both female and male reproductive systems

Solution B (Peroxide):
- Carcinogenic effects:
  - Sodium Acetate: Rated NO by NIOSH
  - Sodium Perborate: Rated NO by OSHA and NIOSH
- Mutagenic effects:
  - Acetic acid: classified POSSIBLE for human
- Developmental toxicity:
  - Sodium Perborate: Classified POSSIBLE for the female reproductive system

Other toxic effects on humans
Minor risks in case of contact with the eye (irritation), ingestion or inhalation (irritation axu lungs).

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Special remarks on chronic effects on humans
Minor risks if ingested or swallowed

Special remarks on other chronic effects on humans
To the best of our knowledge, chemical, physical or toxicological properties have not been thoroughly investigated (Luminol).

SECTION 12: ECOLOGICAL INFORMATION

Waste must be disposed of in accordance with European and local regulations.

SECTION 13: INFORMATION ON WASTE DISPOSAL OPTIONS

Waste disposal
It is recommended to avoid or reduce waste production as much as possible. Avoid the scattering of spilled materials, as well as their flow and contact with soil, waterways, drains and sewers. The disposal of this product, solutions and by-products must comply with the legal requirements for environmental protection and waste disposal at all times as well as the requirements of all local authorities.
Comply with local environmental regulations.

SECTION 14: TRANSPORTATION INFORMATION

Uncategorized

SECTION 15: REGULATORY INFORMATION

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

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