SECTION1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code : RDL Sviluppo Pellicola Universale B&W - B&W Universal Film Developer
Trades code : BWRDL
UFI: K3UX-J8CY-Y00N-GQ3N

1.2. Relevant identified uses of the substance or mixture and uses advised against

Photographic Process
Sectors of use:
Professional use[SU22]
Uses advised against
Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

BELLINI FOTO S.r.l.
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1.4. Emergency telephone number

Bellini Foto S.r.l. (PG) - Tel . +39 075 985 174

SECTION2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:
Pictograms:
GHS05, GHS08, GHS09
Hazard Class and Category Code(s):
Skin Corr. 1, Eye Dam. 1, Muta. 2, Aquatic Chronic 2
Hazard statement Code(s):
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H341 - Suspected of causing genetic defects
H411 - Toxic to aquatic life with long lasting effects.
Corrosive product: causes severe skin burns and eye damage.
If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.
The product is suspected of causing genetic defects
The product is dangerous to the environment as it is toxic to aquatic life with long lasting effects

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:
Pictogram, Signal Word Code(s):
GHS05, GHS08, GHS09 - Danger
Hazard statement Code(s):

H314 - Causes severe skin burns and eye damage.
H341 - Suspected of causing genetic defects
H411 - Toxic to aquatic life with long lasting effects.
Supplemental Hazard statement Code(s):
EUH031 - Contact with acids liberates toxic gas.
Precautionary statements:
General
P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
Prevention
P201 - Obtain special instructions before use.
P260 - Do not breathe dust, fume, gas, mist, vapours, spray.
P264 - Thoroughly wash clothing after use.
P273 - Avoid release to the environment.
P280 - Wear protective gloves protective clothing eye protection face protection.
Response
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P310 - Immediately call a doctor if symptoms persist
P363 - Wash contaminated clothing before reuse.
P391 - Collect spillage.
Storage
P405 - Store locked up.
Disposal
P501 - Dispose of contents and container in accordance with the laws in force
Contains:
potassium hydroxide, Potassium metabisulfite, 4-aminopheno
UFI: K3UX-J8CY-Y00N-GQ3N

2.3. Other hazards

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII
RESTRICTED TO PROFESSIONAL USERS
Packaging to be fitted with child-resistant fastenings
Packaging to be fitted with a tactile warning

SECTION3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
Potassium metabisulfite	>= 20 < 30%	EUH031; Eye Dam. 1, H318 ATE oral = 2.000,0 mg/kg ATE dermal = 2.000,0 mg/kg ATE inhal = 5,5mg/l/4	ND	16731-55-8	240-795-3	01-2119537422-45-0001

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
		h				
potassium hydroxide	>= 10 < 20%	Skin Corr. 2, H315; Eye Irrit. 2, H319 Limits: Skin Corr. 1A, H314 %C >=5; Skin Corr. 1B, H314 2<= %C <5; Skin Irrit. 2, H315 0,5<= %C <2; Eye Irrit. 2, H319 0,5<= %C <2; ATE oral = 333,0 mg/kg ATE dermal = 50,0 mg/kg	019-002-00-8	1310-58-3	215-181-3	01-2119487 136-33
4-aminopheno	>= 1 < 5%	Acute Tox. 4, H302; Acute Tox. 4, H332; Muta. 2, H341; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 Acute toxicity M-factor = 1 Chronic toxicity M-factor = 1	612-128-00-X	123-30-8	204-616-2	NR

SECTION4. First aid measures

4.1. Description of first aid measures

Inhalation:
Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.
Direct contact with skin (of the pure product).:
Take contaminated clothing Immediately off.
In case of contact with skin, wash immediately with water.
Consult a physician immediately
Direct contact with eyes (of the pure product).:
Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately
Do not use eye drops or ointments of any kind before the examination or advice from an oculist.
Ingestion:
Drink water with egg white; do not give bicarbonate.
Absolutely do not induce vomiting or emesis. Seek medical advice immediately.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned: Get medical advice/attention.
If medical advice is needed, have product container or label at hand.
Immediately call a doctor if symptoms persist

SECTION5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:
Water spray, CO2, foam, dry chemical, depending on the materials involved in the fire.
Extinguishing means to avoid:
Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for firefighters

Use protection for the breathing apparatus
Safety helmet and full protective suit.
The spray water can be used to protect the people involved in the extinction
You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)
Keep containers cool with water spray

SECTION6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:
Leave the area surrounding the spill or release. Do not smoke
Wear mask, gloves and protective clothing.
6.1.2 For emergency responders:
Eliminate all unguarded flames and possible sources of ignition. No smoking.
Provision of sufficient ventilation.
Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spill with earth or sand.
If the product has entered a watercourse in sewers or has contaminated soil or vegetation, notify it to the the authorities.
Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:
Rapidly recover the product, wear a mask and protective clothing
Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material.
Prevent it from entering the sewer system.
6.3.2 For cleaning up:
To clean the floor and all objects contaminated by this material use water
After wiping up, wash with water the area and materials involved
6.3.3 Other information:
None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION7. Handling and storage

7.1. Precautions for safe handling

Avoid contact and inhalation of vapors
Wear protective gloves protective clothing eye protection face protection.

In residential areas do not use on large surfaces.
At work do not eat or drink.
See also paragraph 8 below.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Store in a cool place, away from sources of heat and `direct exposure of sunlight.

7.3. Specific end use(s)

Professional use:
Photographic and cinematographic treatment

SECTION8. Exposure controls/personal protection

8.1. Control parameters

- Substance: Potassium metabisulfite
DNEL
Systemic effects Long term Workers inhalation = 263 (mg/m3)
Systemic effects Long term Consumers inhalation = 78 (mg/m3)
Systemic effects Long term Consumers oral = 10 (mg/kg bw/day)
PNEC
Sweet water = 1,17 (mg/l)
Sea water = 0,12 (mg/l)
STP = 88,1 (mg/l)
- Substance: potassium hydroxide
DNEL
Local effects Long term Workers inhalation = 1 (mg/m3)
Local effects Long term Consumers oral = 1 (mg/kg bw/day)

8.2. Exposure controls

Appropriate engineering controls:
Professional use:
Not established
Individual protection measures:
(a) Eye / face protection
Wear mask
(b) Skin protection
(i) Hand protection
When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)
(ii) Other
When handling the pure product wear full protective skin clothing.
(c) Respiratory protection
Use adequate protective respiratory equipment (EN 14387:2008)
(d) Thermal hazards
No hazard to report
Environmental exposure controls:
Related to contained substances:
Potassium metabisulfite:
Provide eyewash.

SECTION9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	Liquid	
Colour	Not determined	
Odour	Not determined	
Odour threshold	undefined	
pH	14,00 ± 0.05 a 27 °C	pH METRO
Melting point/freezing point	Irrilevant	
Initial boiling point and boiling range	Not determined	
Flash point	non flammable	ASTM D92
Evaporation rate	Not determined	
Flammability (solid, gas)	Irrilevant	
Upper/lower flammability or explosive limits	undefined	
Vapour pressure	Not determined	
Vapour density	Not determined	
Relative density	1,375 g/ml a 27 °C	
Solubility	in water	
Water solubility	Complete	
Partition coefficient: n-octanol/water	Not determined	
Auto-ignition temperature	Not determined	
Decomposition temperature	Not determined	
Viscosity	not determined	
Explosive properties	not explosive	
Oxidising properties	non-oxidizing	

9.2. Other information

No data available.

SECTION10. Stability and reactivity

10.1. Reactivity

Related to contained substances:
Potassium metabisulfite:
Reducing agent: tends to decompose slowly releasing sulphur dioxide.
potassium hydroxide:
Reacts with water and acids.

10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

10.3. Possibility of hazardous reactions

There are no hazardous reactions

10.4. Conditions to avoid

Related to contained substances:
Potassium metabisulfite:
Avoid contact with air.
potassium hydroxide:
Avoid storing out over periods of time to prevent the degradation of the lot.

10.5. Incompatible materials

It can generate inflammable gases to contact with halogenated organic substances, elementary metals.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION11. Toxicological information

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

ATE(mix) oral = 17.182,1 mg/kg
ATE(mix) dermal = ∞
ATE(mix) inhal = 378,0 mg/l/4 h
(a) acute toxicity: based on available data, the classification criteria are not met.
(b) skincorrosion/irritation: Corrosive product: causes severe skin burns and eye damage.
potassium hydroxide: strong caustic effect on skin and mucous membranes.
(c) serious eye damage/irritation: Corrosive product: causes severe skin burns and eye damage. - If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.
potassium hydroxide: strong caustic effect.
(d) respiratoryorskinsensitisation: based on available data, the classification criteria are not met.
(e) germ cell mutagenicity: The product is suspected of causing genetic defects
(f) carcinogenicity: based on available data, the classification criteria are not met.
(g) eproductivetoxicity: based on available data, the classification criteria are not met.
(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.
(i) specific target organ toxicity (STOT) repeated exposurebased on available data, the classification criteria are not met.
(j) aspiration hazard: based on available data, the classification criteria are not met.
Related to contained substances:
Potassium metabisulfite:
LD50 (rat) Oral (mg/kg body weight) = 2000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 5,5
potassium hydroxide:
ROUTES OF EXPOSURE: The substance can be absorbed into the body by inhalation of its aerosol and by ingestion. Inhalation risk Evaporation at 20 ° C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.
EFFECTS OF SHORT-TERM EXPOSURE: Corrosive The substance 'very corrosive to the eyes, the skin and the respiratory tract. Corrosive on ingestion. Inhalation of an aerosol of this substance may cause lung edema (see Notes).
EFFECTS OF LONG-TERM OR REPEATED EXPOSURE: Repeated or prolonged contact with skin may cause dermatitis.
ACUTE HAZARDS / SYMPTOMS
Inhalation Corrosive. Burning sensation. Sore throat. Cough. Difficulty breathing. Shortness of breath. Symptoms may be delayed (see Notes).
SKIN Corrosive. Redness. Ache. Blisters. Serious skin burns.
EYES Corrosive. Redness. Ache. Blurred vision. Severe deep burns.
Ingestion Corrosive. Abdominal pain. Burning sensation. Shock or collapse.
LD50 (rat) Oral (mg/kg body weight) = 333

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 50

11.2. Information on other hazards

No data available.

SECTION12. Ecological information

12.1. Toxicity

Related to contained substances:
Potassium metabisulfite:
EC50 Daphnia magna = 89 mg/l Value. test: 48 h
EC50 Desmodesmus subspicatus Value = 43.8 mg/l For. test: 72 h
LC50 Zebrafish 460-1000 mg/l for Value. test: 96 h
potassium hydroxide:
LC50: PesceGambusia affinis Value = 80 mg/l For. test: 96 h
LC50: aquatic Microorganisms mosquito Value = 80 mg/l For. test: 12:00 am
The product is dangerous for the environment as it is toxic to aquatic organisms following acute exposure.
Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

Related to contained substances:
Potassium metabisulfite:
Cod = 140 mg O2/g
potassium hydroxide:
Not readily biodegradable

12.3. Bioaccumulative potential

Related to contained substances:
Potassium metabisulfite:
Do not bioaccumulate.
potassium hydroxide:
Not foreseeable potential for bioaccumulation.

12.4. Mobility in soil

Related to contained substances:
potassium hydroxide:
There is no specific information on this product.

12.5. Results of PBT and vPvB assessment

No PBT/vPvB ingredient is present

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No adverse effects

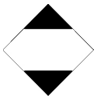
SECTION13. Disposal considerations

13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.
Recover if possible. Send to authorized discharge plants or for incineration under controlled conditions. Operate according to local and National rules in force

SECTION14. Transport information

14.1. UN number or ID number



ADR/RID/IMDG/ICAO-IATA: 1760
ADR exemption because compliance with the following characteristics:
Combination packagings: per inner packaging 5 L per package 30 Kg
Inner packagings placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 5 L per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: LIQUIDO CORROSIVO, N.A.S. (idrossido di potassio, 4-aminofenolo)
ADR/RID/IMDG: CORROSIVE LIQUID, N.O.S. (potassium hydroxide, 4-aminopheno)
ICAO-IATA: CORROSIVE LIQUID, N.O.S. (potassium hydroxide, 4-aminopheno)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 8
ADR/RID/IMDG/ICAO-IATA: Label : Limited quantities
ADR: Tunnel restriction code : E
ADR/RID/IMDG/ICAO-IATA: Limited quantities : 5 L
IMDG - EmS : F-A, S-B

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: III

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is environmentally hazardous
IMDG: Marine polluting agent : Yes

14.6. Special precautions for user

The transport must be carried out by authorised vehicles carrying dangerous goods in accordance with the requirements of the current edition of the agreement A.D.R. applicable national provisions.
The transport must be carried out in the original packaging and in packages that are made from materials resistant to the content and not likely to generate with this dangerous reactions. Employees to the loading and unloading of dangerous goods have received proper training on the risks presented by prepared and on possible procedures to be taken in the event of emergency situations

14.7. Maritime transport in bulk according to IMO instruments

It is not intended to carry bulk

SECTION15. Regulatory information

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

Legislative Decree. 02/03/1997 n. 52 (Classification, packaging and labeling of dangerous substances). Legislative Decree 14/03/2003 n. 65 (Classification, packaging and labeling of dangerous substances). Legislative Decree. 02/02/2002 n. 25 (Risks related to chemical agents at work). D.M. 26/02/2004 Work (Exposure Limits Professional); D.M. 03/04/2007 (Implementation of Directive n. 2006/8 / EC). Regulation (EC) No. 1907/2006 (REACH), Regulation (EC) No. 1272/2008 (CLP), Regulation (EC) 790 / 2009.D.Lgs. September 21, 2005 n. 238 (Seveso Ter).

Seveso category:
E2 - ENVIRONMENTAL HAZARDS
REGULATION (EU) No 1357/2014 - waste:
HP8 - Corrosive
HP11 - Mutagenic
HP14 - Ecotoxic

15.2. Chemical safety assessment

The supplier has made an assessment of chemical safety

SECTION16. Other information

16.1. Other information

Description of the hazard statements exposed to point 3
H318 = Causes serious eye damage.
H315 = Causes skin irritation.
H319 = Causes serious eye irritation.
H302 = Harmful if swallowed.
H332 = Harmful if inhaled.
H341 = Suspected of causing genetic defects
H400 = Very toxic to aquatic life.
H410 = Very toxic to aquatic life with long lasting effects.
Classification based on data of all mixture components
Main normative references:
Directive 1999/45/EC
Directive 2001/60/EC
Regulation 1272/2008/EC
Regulation 2010/453/EC
Regolamento529/2012 and subsequent updates
This data sheet cancels and replaces any previous edition.