

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

1.1. Product identifier

Product code : GRADUAL ST20 ORNANO B&W SVILUPPO PELLICOLA - FILM DEVELOPER
Trades code : BWGRADUALST20

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

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

1.3. Details of the supplier of the safety data sheet

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Tel +39 075 985 174 Fax +39 075 985 288

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1.4. Emergency telephone number

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SECTION2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

GHS07

Hazard Class and Category Code(s):

Acute Tox. 4

Hazard statement Code(s):

H302 - Harmful if swallowed.

Harmful product: do not ingest

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):

GHS07 - Warning

Hazard statement Code(s):

H302 - Harmful if swallowed.

Supplemental Hazard statement Code(s):

EUH208 - Contains hydroquinone. May produce an allergic reaction.

EUH210 - Safety data sheet available on request.

Precautionary statements:

Disposal

P501 - Dispose of contents and container in accordance with the laws in force

Contains:

hydroquinone



2.3. Other hazards

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII
No information on other hazards

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
sodium carbonate	>= 1 < 5%	Eye Irrit. 2, H319	011-005-00-2	497-19-8	207-838-8	NR
hydroquinone	>= 0,1 < 1%	Acute Tox. 4, H302; Skin Sens. 1, H317; Eye Dam. 1, H318; Muta. 2, H341; Carc. 2, H351; Aquatic Acute 1, H400 Acute toxicity M-factor = 10	604-005-00-4	123-31-9	204-617-8	1-21195240 16-51
4-aminopheno	>= 0,1 < 1%	Acute Tox. 4, H302; Acute Tox. 4, H332; Muta. 2, H341; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	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):

Wash thoroughly with soap and running water.

Direct contact with eyes (of the pure product):

Wash immediately and thoroughly with running water for at least 10 minutes.

Ingestion:

The product is harmful and can cause irreversible damages even following a single exposure if swallowed.
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 SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.

SECTION 5. 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 self-respirator, 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

SECTION 6. 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 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 authorities.

Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:

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:

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

SECTION 7. Handling and storage**7.1. Precautions for safe handling**

Avoid contact and inhalation of vapors

At work do not eat or drink.

Do not eat, drink or smoke when using this product.
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

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Related to contained substances:

sodium carbonate:

Anyone.

hydroquinone:

TLV: TWA 1 mg/m³ as A3 (carcinogen recognized for the animal with unknown relevance to humans); (ACGIH 2004).

MAK: skin absorption (H); Carcinogenicity class: 2; Group mutagen to germ cells: 3A; (DFG 2004).

- Substance: hydroquinone

DNEL

Systemic effects Long term Workers inhalation = 7 (mg/m³)

Systemic effects Long term Workers dermal = 128 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 1,74 (mg/m³)

Systemic effects Long term Consumers dermal = 64 (mg/kg bw/day)

Local effects Long term Workers inhalation = 1

Local effects Long term Consumers inhalation = 0,5 (mg/m³)

PNEC

Sweet water = 0,000114 (mg/l)

sediment Sweet water = 0,00098 (mg/kg/sediment)

Sea water = 0,000114 (mg/l)

sediment Sea water = 0,000097 (mg/kg/sediment)

intermittent emissions = 0,00134 (mg/l)

STP = 0,000129 (mg/l)

8.2. Exposure controls

Appropriate engineering controls:

Professional use:

Not established

Individual protection measures:

(a) Eye / face protection

Not needed for normal use.

(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

Wear normal work clothing.

(c) Respiratory protection

Not needed for normal use.

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

Related to contained substances:

hydroquinone:

Do not let this chemical contaminates the environment.

SECTION 9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical and chemical properties	Value	Determination method
Appearance	Liquid	
Odour	Not determined	
Odour threshold	undefined	
pH	9.75 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	1.069 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.

SECTION 10. Stability and reactivity**10.1. Reactivity**

Related to contained substances:

sodium carbonate:

Stable under normal conditions of use.

hydroquinone:

Not known

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:
sodium carbonate:
Humidity
hydroquinone:
It oxidizes easily in air. Keep in a place sheltered from light.

10.5. Incompatible materials

It can generate inflammable gases to contact with elementary metals, nitrides, inorganic sulfide, strong reducing agents.
It can generate toxic gases to contact with inorganic sulfide, strong reducing agents.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11. Toxicological information**11.1. Information on toxicological effects**

ATE(mix) oral = 52.816,9 mg/kg
ATE(mix) dermal = ∞
ATE(mix) inhal = 5.500,0 mg/l/4 h
(a) acute toxicity: Harmful product: do not ingest
(b) skin corrosion/irritation based on available data, the classification criteria are not met.
(c) serious eye damage/irritation: hydroquinone: Strong irritant with risk of serious damage to eyes.
(d) respiratory or skin sensitization: hydroquinone: May cause sensitization by skin contact.
(e) germ cell mutagenicity: hydroquinone: Muta. 2,
(f) carcinogenicity: hydroquinone: CARC. 2
(g) reproductive toxicity: 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 exposure based on available data, the classification criteria are not met.
(j) aspiration hazard: based on available data, the classification criteria are not met.
Health hazards:
Eye contact: accidental contact of the product with the eyes may cause irritation.
Contact with skin: the product is an irritant. Repeated or prolonged contact can degrease and irritate the skin and cause dermatitis in some cases.
Ingestion: ingestion can cause irritation of the mucous membranes of the throat and digestive system resulting in abnormal digestive symptoms and intestinal disorders.
Inhalation: prolonged exposure to vapours or mists of product may cause irritation to respiratory tract.
Related to contained substances:
sodium carbonate:
INHALATION RISK: a harmful concentration of areodisperse particles can be reached quickly especially if powdered.
Effects of short-term EXPOSURE: the substance is irritating to eyes, skin and respiratory tract.
Effects of long-term or REPEATED EXPOSURE: the substance may have effects on the respiratory tract, causing perforation of the nasal septum. Repeated or prolonged contact with skin may cause dermatitis.
Acute hazards/symptoms inhalation: cough. Sore throat.
Skin: Redness.
Ingestion: burning sensation in the throat and chest. Abdominal pain.
LD50 (rat) Oral (mg/kg body weight) = 2000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 117

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 5200

hydroquinone:

LD50 (rat) Oral (mg/kg body weight) = 375

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

SECTION 12. Ecological information

12.1. Toxicity

Related to contained substances:

sodium carbonate:

Fish, *Lepomis macrochirus*, LC 50, 96 H, 300 mg/l

Crustaceans, *Daphnia magna*, EC 50, 48 H, 265 mg/l 50,

algae, *Nitzschia linearis*, EC 5 Days, 242 mg/l

hydroquinone:

LC-50 (fish, 96 h): 0638 mg/l

EC-50 (daphnide, 48 h): 0134 mg/l

Aquatic invertebrates: NOEC (daphnide, 21 d): 0.0057 mg/l

Toxicity to aquatic plants EC-50 (seaweed, 72 h): 0.33 mg/l

NOEC: (seaweed, 72 h): 0.019 mg/l

Acute toxicity M-factor = 10

Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

Related to contained substances:

sodium carbonate:

Water, hydrolysis, degradation: calcium carbonate (pH > 10)/bicarbonate (pH 6-10)/carbonico/carbon dioxide acid (pH < 6) Ground score: hydrolysis as a function of pH

hydroquinone:

There are no more information.

12.3. Bioaccumulative potential

Related to contained substances:

sodium carbonate:

Result: not applicable (product ionizable inorganic)

hydroquinone:

No data available.

12.4. Mobility in soil

Related to contained substances:

sodium carbonate:

Insignificant adsorption

hydroquinone:

No data available. Ecotoxicological effects:

Comments: very toxic to fish.

Further guidance on environmental matters:

Do not enter or ground water, water course or sewage system.

Toxic to fish and plankton.

Very toxic to aquatic organisms

Pericolosità for class 3 waters (D) very dangerous (assessment):

Danger to drinking water if even extremely small quantities leak into soil

12.5. Results of PBT and vPvB assessment

No PBT/vPvB ingredient is present

12.6. 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**

Not included in the scope of application regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

14.2. UN proper shipping name

None

14.3. Transport hazard class(es)

None

14.4. Packing group

None

14.5. Environmental hazards

None

14.6. Special precautions for user

No data available.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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). REGULATION (EU) No 1357/2014 - waste:

HP14 - Ecotoxic

15.2. Chemical safety assessment

The supplier has made an assessment of chemical safety

SECTION 16. Other information

16.1. Other information

Description of the hazard statements exposed to point 3

H319 = Causes serious eye irritation.

H302 = Harmful if swallowed.

H317 = May cause an allergic skin reaction.

H318 = Causes serious eye damage.

H341 = Suspected of causing genetic defects

H351 = Suspected of causing cancer .

H400 = Very toxic to aquatic life.

H332 = Harmful if inhaled.

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

Regolamento 529/2012 and subsequent updates

This data sheet cancels and replaces any previous edition.