

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

1.1. Product identifier

Product code : B/W KIT INVERSIONE II° SVILUPPO It 1
Trades code : B/W KITINVC

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

Process categories:

Mixing or blending in batch processes for formulation of preparations* and articles (multistage and/or significant contact)[PROC5]

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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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, GHS08

Hazard Class and Category Code(s):

Skin Sens. 1, Eye Irrit. 2, Muta. 2, Carc. 2

Hazard statement Code(s):

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H341 - Suspected of causing genetic defects

H351 - Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

If brought into contact with eyes, the product, causes significant irritations which may last for more than 24 hours.

The product, if brought into contact with skin can cause skin sensitization.

The product is suspected of causing genetic defects

The product may pose a risk of carcinogenesis.

2.2. Label elements

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

Pictogram, Signal Word Code(s):

GHS07, GHS08 - Warning



Hazard statement Code(s):

H317 - May cause an allergic skin reaction.
 H319 - Causes serious eye irritation.
 H341 - Suspected of causing genetic defects
 H351 - Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

Supplemental Hazard statement Code(s):

EUH031 - Contact with acids liberates toxic gas.

Precautionary statements:

Prevention

P201 - Obtain special instructions before use.
 P261 - Avoid breathing dust, fume, gas, mist, vapours, spray.
 P280 - Wear protective gloves protective clothing eye protection face protection.

Response

P308+P313 - IF exposed or concerned: Get medical advice/attention.
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 P337+P313 - If eye irritation persists: Get medical advice attention.
 P363 - Wash contaminated clothing before reuse.

Disposal

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

Contains:

hydroquinone, Potassium metabisulfite

2.3. Other hazards

The substance / mixture NOT contains substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII
 The use of this chemical agent involves the obligation of "risk assessment" by the employer in accordance with Dlgs.
 April 9, 2008 # 81. Workers exposed to this chemical agent should not be subjected to health surveillance if the results
 of the risk assessment show that, in relation to the type and quantity of hazardous chemical agent and that agent
 exposure frequency and mode, you just a "moderate risk" for the health and safety of workers and that the measures
 laid down in the decree are sufficient to reduce the risk.

RESTRICTED TO PROFESSIONAL USERS

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	
Potassium bromide	> 1 <= 5%	Eye Irrit. 2, H319		7758-02-3	231-830-3	01-2119962 195-33
hydroquinone	> 1 < 3%	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

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.

Wash immediately with plenty of running water and possibly with soap, the areas of the body that have, or are only suspected to have, come in contact with the product.

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:

Not hazardous. It's possible to give activated charcoal in water or liquid paraffin medicine

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 skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice attention.

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:

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
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.
Contaminated work clothing should not be allowed out of the workplace.
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: Potassium bromide

DNEL

Systemic effects Long term Workers inhalation = 4,75 (mg/m³)

Systemic effects Long term Workers dermal = 95 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 1,66 (mg/m³)

Systemic effects Long term Consumers dermal = 95 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 0,475 (mg/kg bw/day)

PNEC

Sweet water = 0,52 (mg/l)

Sea water = 41 (mg/l)

intermittent emissions = 109 (mg/l)

STP = 100 (mg/l)

ground = 3,2 (mg/kg ground)

- 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

When handling the pure product use safety glasses (spectacles cage) (EN 166).

(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

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.

SECTION9. 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	Not determined	
pH	10.00 ± 0.05 a 20 °C	pH METRO
Melting point/freezing point	Not determined	
Initial boiling point and boiling range	> 100 °C	
Flash point	non flammable	ASTM D92
Evaporation rate	Irrilevant	
Flammability (solid, gas)	Not determined	
Upper/lower flammability or explosive limits	Irrilevant	
Vapour pressure	Irrilevant	
Vapour density	Irrilevant	
Relative density	1.055 ± 0.005 a 20 °C	
Solubility	in water	

Physical and chemical properties	Value	Determination method
Water solubility	Complete	
Partition coefficient: n-octanol/water	Not determined	
Auto-ignition temperature	Irrilevant	
Decomposition temperature	Not determined	
Viscosity	Irrilevant	
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:
sodium carbonate:
Stable under normal conditions of use.
Potassium bromide:
Reacts explosively with bromine trifluoride.
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

Nothing to report

10.5. Incompatible materials

It can generate flammable gases in contact with dithiocarbamates, primary metals, nitrides, strong reducing agents.
It can generate toxic gases to contact with ditiocarbamate, organic fluoride, inorganic sulfide, strong oxidants agents.
It can ignite in contact with elementary metals.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION11. Toxicological information**11.1. Information on toxicological effects**

ATE(mix) oral = 32.894,7 mg/kg

ATE(mix) dermal = ∞

ATE(mix) inhal = ∞

- (a) acute toxicity: based on available data, the classification criteria are not met.
- (b) skin corrosion/irritation based on available data, the classification criteria are not met.
- (c) serious eye damage/irritation: If brought into contact with eyes, the product, causes significant irritations which may last for more than 24 hours.

hydroquinone: Strong irritant with risk of serious damage to eyes.
(d) respiratory or skin sensitization: The product, if brought into contact with skin can cause skin sensitization.
hydroquinone: May cause sensitization by skin contact.
(e) germ cell mutagenicity: The product is suspected of causing genetic defects
hydroquinone: Muta. 2,
(f) carcinogenicity: The product may pose a risk of carcinogenesis.
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.
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
Potassium bromide:
LD50 (rat) Oral (mg/kg body weight) = 2000
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000
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, *Nitzscheria linearis*, EC 5 Days, 242 mg/l
Potassium bromide:
LC50: Fish *Oryzias latipes* Value = 30.9 g/l For. test: 96 h
EC50 Daphnia: *Daphnia magna* Value > 100 mg/l For. test: 48 h
Alga *Skeletonema costatum* > Value EC50: 440 mg/l For. test: 72 h
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)/carbonic/carbon dioxide acid (pH < 6)
Ground score: hydrolysis as a function of pH
Potassium bromide:
KBR an inorganic salt, which dissociates completely in water environment in manganese ions and bromide. Also

degrades in soil in bromide ion
hydroquinone:
There are no more information.

12.3. Bioaccumulative potential

Related to contained substances:
sodium carbonate:
Result: not applicable (product ionizable inorganic)
Potassium bromide:
Not foreseeable potential for bioaccumulation.
hydroquinone:
No data available.

12.4. Mobility in soil

Related to contained substances:
sodium carbonate:
Insignificant adsorption
Potassium bromide:
There is no specific information on this product.
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

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

12.6. Other adverse effects

No adverse effects

SECTION 13. 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

SECTION 14. Transport information

14.1. UN number

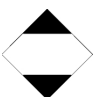
ADR/RID/IMDG/ICAO-IATA: 2810
ADR exemption because compliance with the following characteristics:
Combination packagings: per inner packaging 5 L per package 30 Kg
Inner packagings placed in shrink-wrapped or stretch-wrapped trays: per inner packaging 5 L per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: LIQUIDO ORGANICO TOSSICO, N.A.S. (solfato di bis(4-idrossi-N-metil-anilinio), idrochinone)
ADR/RID/IMDG: TOXIC LIQUID, ORGANIC, N.O.S. (bis(4-idrossi-N-metil-anilinio) solfato, idrochinone)
ICAO-IATA: TOXIC LIQUID, ORGANIC, N.O.S. (bis(4-idrossi-N-metil-anilinio) solfato, idrochinone)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 6.1
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-A

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: III

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is not environmentally hazardous
IMDG: Marine polluting agent : Not

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. 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:

HP7 - Carcinogenic

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**

Points modified compared to previous release: 1.2. Relevant identified uses of the substance or mixture and uses advised against, 2.1. Classification of the substance or mixture, 2.2. Label elements, 2.3. Other hazards, 7.1. Precautions for safe handling, 8.1. Control parameters, 8.2. Exposure controls, 10.1. Reactivity, 10.5. Incompatible materials, 10.6. Hazardous decomposition products, 11.1. Information on toxicological effects, 12.1. Toxicity, 12.2. Persistence and degradability, 12.3. Bioaccumulative potential, 13.1. Waste treatment methods, 14.1. UN number, 14.2. UN proper shipping name, 14.3. Transport hazard class(es), 14.4. Packing group, 14.5. Environmental hazards, 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

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.

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In conformity to Regulation (EU) 2015/830

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.
