

**SECTION1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product code : C 41 FISSAGGIO RA  
Trades code : TN FIX RA

**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**

BELLINI FOTO S.r.l.  
VIA FERRIERA, 68 - 06089 - TORGIANO - PERUGIA  
ITALY  
Tel +39 075 985 174 Fax +39 075 985 288

E-mail: info@bellinifoto.it - Web: www.bellinifoto.it  
E-mail technical assistance: enrico.pompili@bellinifoto.it

Produced by  
BELLINI FOTO S.r.L.  
Via Ferriera, 68 06089 TORGIANO - PG - ITALY Tel. +39 075 985174

**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:

None

Hazard Class and Category Code(s):

Nonhazardous

Hazard statement Code(s):

Nonhazardous

**2.2. Label elements**

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

Pictogram, Signal Word Code(s):

None

Hazard statement Code(s):

Nonhazardous

Supplemental Hazard statement Code(s):

EUH032 - Contact with acids liberates very toxic gas.

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EUH210 - Safety data sheet available on request.

Precautionary statements:

None in particular.

**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**

Irrelevant

**3.2 Mixtures**

Refer to paragraph 16 for full text of hazard statements

Note B - Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Substance	Concentration[ w/w]	Classification	Index	CAS	EINECS	REACH
Ammonium thiocyanate	> 10 <= 20%	EUH032; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332		1762-95-4	217-175-6	
Ammonium hydrogensulphite	> 1 <= 5%	EUH031; Eye Irrit. 2, H319		10192-30-0	233-469-7	01-2119537 321-49-000 0
Acetic acid 80 % Note: B substance for which there are Community workplace exposure limits	> 0,1 <= 1%	Skin Corr. 1A, H314	607-002-00-6	64-19-7	200-580-7	01-2119475 328-30

**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:

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**

No data available.

**SECTION 5. Firefighting measures****5.1. Extinguishing media**

Advised extinguishing agents:

Water spray, CO<sub>2</sub>, 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.

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:

Ammonium hydrogensulphite:

AMMONIUM BISULFITE solution-CAS: 10192-30-0

ACGIH, 0.25 ppm-notes: (SO<sub>2</sub>)

EU, 0.5 ppm, ppm-1 notes: (SO<sub>2</sub>)

DNEL exposure limit values

AMMONIUM BISULFITE-CAS: 10192-30-0

Industrial worker: 10 mg/m<sup>3</sup>-Human Inhalation exposure-frequency: long-term, systemic effects

Consumer: 0.901 mg/kg Oral Human exposure-frequency: long-term, local effects

PNEC exposure limit values

AMMONIUM BISULFITE-CAS: 10192-30-0

Target: fresh water-value: 1.04 mg/l

Target: seawater-value: 0.1 mg/l

Target: Microorganisms in wastewater treatment-value: 78.6 mg/l

Acetic acid 80 %:

ACETIC ACID ...%; No. CAs: 64-19-7

Type of limit value (country of origin): TWA (EC)

Limit value: 10 ppm/25 mg/m<sup>3</sup>

- Substance: Ammonium hydrogensulphite

DNEL

Systemic effects Long term Workers inhalation = 10 (mg/m<sup>3</sup>)

Local effects Long term Consumers oral = 0,901 (mg/kg bw/day)

PNEC

Sweet water = 1,04 (mg/l)

Sea water = 0,1 (mg/l)

- Substance: Acetic acid 80 %

DNEL

Systemic effects Long term Workers inhalation = 25 (mg/m<sup>3</sup>)

Systemic effects Long term Consumers inhalation = 25 (mg/m<sup>3</sup>)

Systemic effects Short term Workers inhalation = 25 (mg/m<sup>3</sup>)

Systemic effects Short term Consumers inhalation = 25 (mg/m<sup>3</sup>)

PNEC

Sweet water = 3,058 (mg/l)

sediment Sweet water = 11,36 (mg/kg/sediment)

Sea water = 0,3058 (mg/l)

sediment Sea water = 1,136 (mg/kg/sediment)

intermittent emissions = 30,58 (mg/l)

STP = 85 (mg/l)

ground = 0,47 (mg/kg ground)

**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:

Ammonium hydrogensulphite:

Eye protection:

Use protective visors closed, do not use eye lenses.

Skin protection:

Wear clothing that guarantee full protection for the skin, eg. cotton, rubber, PVC or viton.

Protection of hands:

Use protective gloves that provide for full protection, eg. PVC, neoprene or rubber.

Respiratory protection:

Where ventilation is insufficient or exposure is prolonged use of a respiratory protective device, eg. CEN/FFP-2 (S) or CEN/FFP-3 (S).

Thermal Hazards:

no

Environmental exposure controls:

no

Acetic acid 80 %:

For the selection of suitable gloves more, see the class that owns the pericolosit preparation (section 2), refer to the risk assessment carried out by you and, where appropriate, see also the supplier of choice for the most protective material appropriate. Avoid contact with skin when handling the substance / preparation or a mixture of protective gloves and protective clothing appropriate to the risk of 'transaction. Use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact:

Material Thickness

Nitrile rubber curing time &gt; = 0.38 mm &gt; 480 min

Neoprene &gt; = 0.65 mm &gt; 240 min

Butyl rubber &gt; = 0.36 mm &gt; 480 min

Do not get this chemical enter 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	Ammonia light	
Odour threshold	Irrilevant	

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Physical and chemical properties	Value	Determination method
pH	8.00 ± 0.10 a 25 °C	pH METRO
Melting point/freezing point	Irrilevant	
Initial boiling point and boiling range	> 100 °C	
Flash point	non flammable	ASTM D92
Evaporation rate	Irrilevant	
Flammability (solid, gas)	Irrilevant	
Upper/lower flammability or explosive limits	Irrilevant	
Vapour pressure	Irrilevant	
Vapour density	Irrilevant	
Relative density	1.170 ± 0.010 a 25 °C	
Solubility	in water	
Water solubility	Complete	
Partition coefficient: n-octanol/water	Irrilevant	
Auto-ignition temperature	Irrilevant	
Decomposition temperature	> 170 °C	
Viscosity	Irrilevant	
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:  
Ammonium hydrogensulphite:  
Stable under normal conditions.  
Acetic acid 80 %:  
The corrosive product, can lead to dangerous reactions.

### 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 inflammable gases to contact with elementary metals, nitrides, inorganic sulfide, strong reducing agents.

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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 = 2.941,2 mg/kg

ATE(mix) dermal = 6.470,6 mg/kg

ATE(mix) inhal = 64,7 mg/l/4 h

(a) acute toxicity: based on available data, the classification criteria are not met.

(b) skin corrosion/irritation: Acetic acid 80 %: Skin irritation (OECD 404): irritant (rat)

(c) serious eye damage/irritation: Acetic acid 80 %: Eye irritation (OECD 405): corrosive (determined on rabbit eyes)

(d) respiratory or skin sensitization: Acetic acid 80 %: No sensitizing effects known.

(e) germ cell mutagenicity: Acetic acid 80 %: No known mutagenic, carcinogenic or reprotoxicants.

(f) carcinogenicity: Acetic acid 80 %: No known mutagenic, carcinogenic or reprotoxicants.

(g) reproductive toxicity: Acetic acid 80 %: Parameter: NOAEL (fetal development) (acetic acid ...%; No. CAs: 64-19-7)

Route of exposure: rabbit

Effective dose: 1600 mg/kg bw/day

(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:

Ammonium thiocyanate:

LD50 (rat) Oral (mg/kg body weight) = 500

Ammonium hydrogensulphite:

Toxicological information pertaining to the substance:

AMMONIUM BISULFITE solution-CAS: 10192-30-0

c) serious eye injuries/ocular severe irritation:

Test: corrosive to Positive eyes

The main impurities in substances: N.A.

Unless otherwise specified, the information required by regulation 453/2010/EC listed below are N.A.:

a) acute toxic;

b) corrosion/irritation;

c) serious eye injuries/ocular severe irritation;

(d) respiratory or skin sensitization);

e) germ cell mutagenicity;

f) cancerogenicity;

g) toxic to reproduction;

h) specific toxic to target organs (STOT) 14 single exposure;

i) toxic to target organs (STOT) 14 repeated exposure;

j) danger in case of aspiration.

Acetic acid 80 %:

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:

Acute oral toxicity (LD50): 9194 mg/kg (Rat) (Calculated value for the mixture).  
Acute dermal toxicity (LD50): 2944 mg/kg (Rabbit) (Calculated value for the mixture).  
Chronic Effects on Humans:  
MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Acetic acid]. Mutagenic for bacteria and/or yeast. [Acetic acid].  
Contains material which may cause damage to the following organs: kidneys, mucous membranes, skin, teeth.  
Other Toxic Effects on Humans:  
Extremely hazardous in case of inhalation (lung corrosive).  
Very hazardous in case of skin contact (irritant), of ingestion, .  
Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive).  
Special Remarks on Toxicity to Animals: Not available.  
Special Remarks on Chronic Effects on Humans:  
May affect genetic material and may cause reproductive effects based on animal data. No human data found. (Acetic acid)  
Special Remarks on other Toxic Effects on Humans:  
Acute Potential Health Effects:  
Skin: Extremely irritating and corrosive. Causes skin irritation (reddening and itching, inflammation). May cause blistering , tissue damage and burns.  
Eyes: Extremely irritating and corrosive. Causes eye irritation, lacrimation, redness, and pain. May cause burns, blurred vision, conjunctivitis, conjunctival and corneal destruction and permanent injury.  
Inhalation: Causes severe respiratory tract irritation. Affects the sense organs (nose, ear, eye, taste), and blood. May cause chemical pneumonitis, bronchitis, and pulmonary edema. Severe exposure may result in lung tissue damage and corrosion (ulceration) of the mucous membranes. Inhalation may also cause rhinitis, sneezing, coughing, oppressive feeling in the chest or chest pain, dyspnea, wheezing, tachypnea, cyanosis, salivation, nausea, giddiness, muscular weakness.  
Ingestion: Moderately toxic. Corrosive. Causes gastrointestinal tract irritation (burning and pain of the mouth, throat, and abdomen, coughing, ulceration, bleeding, nausea, abdominal spasms, vomiting, hematemesis, diarrhea. May Also affect the liver (impaired liver function), behavior (convulsions, giddines, muscular weakness), and the urinary system - kidneys (Hematuria, Albuminuria, Nephrosis, acute renal failure, acute tubular necrosis). May also cause dyspnea or asphyxia. May also lead to shock, coma and death.  
Chronic Potential Health Effects:  
Chronic exposure via ingestion may cause blackening or erosion of the teeth and jaw necrosis, pharyngitis, and gastritis. It may also behavior (similar to acute ingestion), and metabolism (weight loss).  
Chronic exposure via inhalation may cause asthma and/or bronchitis with cough, phlegm, and/or shortness of breath . It may also affect the blood (decreased leukocyte count), and urinary system (kidneys).  
Repeated or prolonged skin contact may cause thickening, blackening, and cracking of the skin. (Acetic acid)  
LD50 (rat) Oral (mg/kg body weight) = 3530  
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 4960  
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 5620

## **SECTION12. Ecological information**

### **12.1. Toxicity**

Related to contained substances:  
Ammonium hydrogensulphite:  
Follow good working practices, avoid dispersion into the environment.  
Acetic acid 80 %:  
LC50: Oncorhynchus mykiss Fish &gt; Value mg/l for 300.82. test: 96 h  
EC50 Daphnia: Daphnia magna &gt; Value mg/l for 300.82. test: 48 h  
Alga Skeletonema costatum EC50: &gt; Value mg/l for 300.82. test: 72 h  
Use according to good working practices to avoid pollution into the environment.

### **12.2. Persistence and degradability**

Ammonio tiocianato  
\*\*\*\* Not translated \*\*\*\*  
Ammonium hydrogensulphite:  
Non-persistent and biodegradable.  
Acetic acid 80 %:  
Biodegrades, aerobically and anaerobically, both in water and on the ground.



Carboxylic acids are generally resistant to hydrolysis in aqueous medium.

**12.3. Bioaccumulative potential**

Related to contained substances:

Ammonium hydrogensulphite:

No

Acetic acid 80 %:

Has low potential for bioconcentration

**12.4. Mobility in soil**

Related to contained substances:

Ammonium hydrogensulphite:

No

Acetic acid 80 %:

Mobility has ground between moderate and very high. Pu volatilize from the soil.

Do not evaporate from damp and wet. There is atmosphere in vapour phase.

**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. Operate according to local or national regulations

**SECTION 14. 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

**SECTION 15. Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Related to contained substances:  
Ammonium hydrogensulphite:  
Legislative Decree No. 81 4/9/2008  
D.m. 2/26/2004 Work (occupational exposure limits)  
Regulation (EC) No 1907/2006 (REACH)  
Regulation (EC) no 1272/2008 (CLP)  
Regulation (EC) no 790/2009 (ATP 1 CLP) and (EC) no 758/2013  
Commission Regulation (EU) 2015/830  
Commission Regulation (EU) no 286/2011 (ATP 2 CLP)  
Commission Regulation (EU) no 618/2012 (ATP 3 CLP)  
Commission Regulation (EU) no 487/2013 (ATP 4 CLP)  
Commission Regulation (EU) no 944/2013 (ATP 5 CLP)  
Commission Regulation (EU) no 605/2014 (ATP 6 CLP)  
Restrictions on product or substances in accordance with annex XVII of Council Regulation (EC) 1907/2006 (REACH) and subsequent modifications:  
Product restrictions: Restriction 3  
Substances restrictions: no restrictions.  
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).

**15.2. Chemical safety assessment**

No chemical safety assessment was carried out by the supplier

**SECTION 16. 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, 2.2. Label elements, 2.3. Other hazards, 3.2 Mixtures, 6.1. Personal precautions, protective equipment and emergency procedures, 8.1. Control parameters, 8.2. Exposure controls, 10.1. Reactivity, 10.5. Incompatible materials, 11.1. Information on toxicological effects, 12.1. Toxicity, 12.2. Persistence and degradability, 12.3. Bioaccumulative potential, 12.4. Mobility in soil, 13.1. Waste treatment methods, 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
Description of the hazard statements exposed to point 3  
H302 = Harmful if swallowed.  
H312 = Harmful in contact with skin.  
H332 = Harmful if inhaled.  
H319 = Causes serious eye irritation.

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H314 = Causes severe skin burns and eye damage.

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.

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