SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code : **ars-imago FD – High energy**
Trades code : arsfd300

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

Photographic process
Professional use [SU22]
Photochemicals
Uses advised against
Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

ars-imago international s.r.l. ROME - ITALY
Email: info@ars-imago.com
Internet: www.ars-imago.com
Email technical contact: chemicals@ars-imago.com
National contacts: Francesco Ferrara/Giorgio Di Noto/Alessandro Franchini

Produced by
ars-imago international s.r.l. ROME - ITALY
Viale Mazzini 88 00195 Rome
Tel. +39 06 454 92 886

1.4. Emergency telephone number

+39 06 454 92 886

SECTION 2. 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):
Eye Irrit. 2, Skin Sens. 1, Muta. 2, Carc. 2

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

2.1.2 Classification according to Directive 1999/45/EEC:
Classification:

Muta. Cat. 3; Xn; Carc Cat. 3 R40 Xn; R68 Xi; R43
Nature of special risks attributed:
R40 - Limited evidence of a carcinogenic effect
R43 - May cause sensitisation by skin contact
R68 - Possible risk of irreversible effects. 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):
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction
H341 - Suspected of causing genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>
H351 - Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routs of exposure cause the hazard>.

Precautionary statements:
Prevention
P202 - Do not handle until all safety precautions have been read and understood
P280 - Wear protective gloves/protective clothing/eye protection/face protection

Response
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Contains:
hydroquinone, Edetic acid

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

SECTION 3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of risk phrases and hazard statements

Sustance	Concentration	Classification	Index	CAS	EINECS	REACh
hydroquinone	> 1 <= 5%	Carc. Cat. 3; Muta. Cat. 3; Xn; R22 Carc. Cat. 3; R40 R68 Xi; R41 Xi; R43 N; R50 Acute Tox. 4, H302; Skin Sens. 1, H317; Eye Dam. 1, H318; Muta. 2, H341; Carc. 2, H351; Aquatic Acute 1, H400 (M-factor10)	604-005-00-4	123-31-9	204-617-8	
Edetic acid	> 0,1 <= 1%	Xi; R36 Eye Irrit. 2, H319	607-429-00-8	60-00-4	200-449-4	

SECTION 4. 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).:
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.

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 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

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 mask, gloves and protective clothing.

6.1.2 For emergency responders:
Wear mask, gloves and protective clothing.
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. See also paragraph 8 below.
At work do not eat or drink.

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:
hydroquinone
TLV: 2 mg/m as TWA A3 (approved for the animal carcinogen with unknown relevance to humans) (ACGIH 2004). MAK: skin absorption (H); Cancerogenicit class: 2; Group mutagen to germ cells: 3A; (DFG 2004).

8.2. Exposure controls

Appropriate engineering controls:
None under normal conditions of use.

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.

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	irrelevant	
Odour threshold	irrelevant	
pH	10.40 ± 0.10 a 25 °C	
Melting point/freezing point	irrelevant	
Initial boiling point and boiling range	irrelevant	
Flash point	nonflammable	
Evaporation rate	non pertinente	
Flammability (solid, gas)	irrelevant	
Upper/lower flammability or explosive limits	irrelevant	
Vapour pressure	irrelevant	
Vapour density	irrelevant	
Relative density	1.200 ± 0.10 Kg/dm3 a 25 °C	
Solubility	in water	
Water solubility	Complete	
Partition coefficient: n-octanol/water	irrelevant	
Auto-ignition temperature	nonflammable	
Decomposition temperature	irrelevant	
Viscosity	irrelevant	
Explosive properties	not explosive	
Oxidising properties	non-oxidizing	

9.2. Other information

No data available.

SECTION 10. Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

There is no hazardous polymerization.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Contact with acids liberates toxic gas

10.6. Hazardous decomposition products

Nitrogen oxides (Nox).

SECTION 11. Toxicological information

11.1. Information on toxicological effects

ATE(mix) oral = 12.903,2 mg/kg
ATE(mix) dermal = 0,0 mg/kg
ATE(mix) inhal = 0,0 mg/l/4 h
(a) acute toxicity: not applicable
(b) skin corrosion/irritationnot applicable
(c) serious eye damage/irritation: If brought into contact with eyes, the product, causes significant irritations which may last for more than 24 hours.
(d) respiratory or skin sensitization: The product, if brought into contact with skin can cause skin sensitization.
(e) germ cell mutagenicity: The product is suspected of causing genetic defects
(f) carcinogenicity: The product may pose a risk of carcinogenesis.
(g) reproductive toxicity: not applicable
(h) specific target organ toxicity (STOT) single exposure: not applicable
(i) specific target organ toxicity (STOT) repeated exposurenot applicable
(j) aspiration hazard: not applicable

Related to contained substances:
hydroquinone
CAS 123-31-9

Acute toxic data:

Dermal absorption rate: 1.1 micrograms (s)/2 cm/hour
Irritating to the skin: light
Skin sensitization (Guinea-India): positive
Irritating to eyes: moderate

ROUTES of EXPOSURE: the substance can be absorbed into the body by inhalation, through the skin and by ingestion.

INHALATION RISK: A dangerous air contamination will not be reached or the sar only very slowly by evaporation of the substance at 20 C.
Effects of short-term exposure: the substance is severely irritating to eyes the substance is irritating to the skin and the respiratory tract effects of REPEATED EXPOSURE or long-term repeated or prolonged Contact with skin may cause dermatitis. Repeated or prolonged contact may cause skin sensitization. The substance may have effects on the eyes and skin, causing discoloration of the conjunctiva and cornea and skin depigmentation. It is possible that this substance is carcinogenic to humans.

N O T E depending on the degree of exposure, periodic medical examinations are indicated. The smell a warning inadequate even in the presence of toxic concentrations.

LD50 (rat) Oral (mg/kg body weight) = 400
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 1000
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 150
Edetic acid:
LD50 (rat) Oral (mg/kg body weight) = 2000

SECTION 12. Ecological information

12.1. Toxicity

Related to contained substances:
hydroquinone

The substance is very toxic to aquatic organisms.
Daphnia EC 50/24 hours = 0.09 mg/l
M-factor10
Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

Related to contained substances:
hydroquinone
Biodegradable.

12.3. Bioaccumulative potential

Related to contained substances:
hydroquinone
Not bioaccumulative.

12.4. Mobility in soil

Related to contained substances:
hydroquinone
Not available

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

2810
If subject to the following characteristics is ADR exempt:
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

TOXIC LIQUID, ORGANIC, N.O.S. (1-phenyl-3-pyrazolidone)

14.3. Transport hazard class(es)

Class : 6.1 Label : 6.1
Tunnel restriction code : E
Limited quantities : 5 L
EmS : F-A, S-A

14.4. Packing group

III

14.5. Environmental hazards

Product is not environmentally hazardous
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

SECTION 15. Regulatory information

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

No data available.

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION 16. Other information

16.1. Other information

Description of the sentences of risk set out in paragraph 3
R22 = Harmful if swallowed.
R36 = Irritating to eyes.
R40 = Limited evidence of a carcinogenic effect.
R41 = Risk of serious damage to eyes.
R43 = May cause sensitisation by skin contact.
R50 = Very toxic to aquatic organisms.
R68 = Possible risk of irreversible effects.

Description of the hazard statements exposed to point 3
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.
H319 = Causes serious eye irritation.
Classification based on data of all mixture components