ZONE

IMAGING

Zone Imaging Ltd.

Safety Data Sheet

510 Pyro Film Developer 1+100

This SDS is not mandated under REACH Regulation (EC) No 1907/2006 and is provided for information only.

This SDS relates to the product after it has been prepared for use in accordance with our recommendations. Because Zone Imaging Ltd. does not supply the solution ready for use, we are not obliged to provide this SDS. However, we do so to help users to use the product safely and assess correctly the risks involved. Users should also have and refer to the SDS for the concentrate from which the working strength solution is prepared.

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

1.1. Product identifier

Product name 510 Pyro 1+100

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

Identified uses Photographic Developer Solution

Other uses None

1.3. Details of the supplier of the safety data sheet

Supplier Zone Imaging Ltd., Unit 6, 58b Alexandra Road, Enfield, London, EN3 7EH, UK

Tel +4477 6099 6515

Email info@zoneimaging-photochemicals.co.uk

Emergency tel	See the 510 Pyro Safety Data Sheet of the concentrate for details.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Product definition: Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified as hazardous.

2.2. Label elements

Pictograms	None
Signal word	None
Hazard statements	**EUH208 -** Contains pyrogallol. May produce an allergic reaction.
Precautionary statements	
General	Not Applicable
Prevention	**P264**: Wash hands and equipment thoroughly after handling.
	P280: Wear protective gloves/protective clothing/eye protection/face protection.
Response	**P302+P352:** IF ON SKIN: Wash with plenty of water.
	P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
Disposal regulations.	**P501** Dispose of contents/container in accordance with local
Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	N/A

2.3. Other Hazards

Other hazards which do not result in classification	None

SECTION 3: Composition/information on ingredients

3.1. Mixture of the substances listed below with harmless additions

Substance name	Identifiers	% w/w	Hazards	Type
Triethanolamine	CAS# 102-71-6 EC# 203-049-8 REACH# 01-2119486482-31	0.5 - 1	Not classified	2
Pyrogallol	CAS# 87-66-1 EC# 201-762-9 REACH# 01-2120771401-62	0.1 - 0.5	Acute Tox 4 H302 Acute Tox 4 H312 Skin Irrit 2 H315 Skin Sens 1 H317 Eye Dam 2 H319 Acute Tox 4 H332 Muta 2 H341 Aq Tox Chr 3 H412	1
L-Ascorbic Acid	CAS# 50-81-7 EC# 200-066-2	≤0.1	Not classified	2
1-phenyl-3-pyrazolidone (Phenidone A)	CAS# 92-43-3 EC# 202-155-1 REACH# 01-212011875-53	<0.01	Acute Tox. 4 H302 Aquatic Chr. Tox. 2 H411	1

Type: 1. Hazardous Substance

2. Substance with a workplace exposure limit

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Remove any contaminated clothing. If you feel unwell seek medical advice.

Inhalation Allow affected person to breathe fresh air. Allow the victim to rest. Adverse effects not expected from this product.

Ingestion DO NOT induce vomiting. If you feel unwell seek medical advice.

Skin contact Wash affected areas thoroughly with water. If rash/irritation occurs seek medical advice.

Eye contact Rinse affected eye with water taking care to ensure contaminate water does not enter the unaffected eye, remove contacts if present and able. If irritation occurs seek medical advice.

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

May cause an allergic skin reaction.

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

Notes for the doctor Provide SDS document. Doctor should treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media Not available

5.2. Special hazards arising from the substance or mixture

Specific risks None, this product is non-flammable nor explosive.

Hazardous combustion products Thermal decomposition or combustion products may include carbon and nitrogen oxides and other toxic vapours.

5.3. Advice for firefighters

Protective actions during firefighting No specific firefighting precautions known.

Special protective equipment Wear protective eyewear, gloves and clothing. Use NIOSH approved respiratory protection/breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin and eyes. For personal protection, see Section 8.

6.2. Environmental precautions

Environmental precautions Inform respective authorities in case product reaches water or sewage system. Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing, gloves, eye, and face protection. Flush away spillage with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Do not eat, drink, or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Used product should be stored away from the reach of children. Storage should only be undertaken for disposal purposes for later.

Storage class Chemical storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters: Occupational exposure limits

TRIETHANOLAMINE

CAS# 102-71-6

Long-term exposure limit (8-hour TWA): WEL 5mg/m3

ASCORBIC ACID

CAS# 50-81-7

Long-term exposure limit (8-hour TWA): WEL 15mg/m3

8.2. Exposure controls

Protective equipment

Eye/face protection Tightly sealed safety glasses or face shield.

Hand protection Use protective gloves. The protective gloves to be used must comply with the specifications of the EC directive 89/686/EEC and the resultant standard EN 374. Only use chemical-protective gloves with CE-labelling of category III. Avoid contact with used gloves.

Recommended material of gloves: Nitrile rubber, butyl rubber. Recommended thickness of the material: >= 0.5 mm

Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Amber
Odour	None
pH @20°C	9.5
Relative density/specific gravity	1.01 @20°C
Initial boiling point and range	>100°C @ 760 mm Hg
Initial freezing point and range	<0°C @760mm Hg
Evaporation rate	1 H20 (water) = 1
Vapour pressure	No information available.
Auto-ignition temperature	This product is not self-igniting.
Explosive properties	This product is non-explosive.
Solubility	Miscible

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability	Stable under normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.

10.4. Conditions to avoid

Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials

Materials to avoid Strong acids. Avoid contact with other photographic solutions and/or cleaning compounds.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: oxides of carbon, and nitrogen and other toxic vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects This chemical formulation has not been tested for health effects. Exposure effects listed are based on existing health data for the individual components that comprise the mixture.

Germ cell mutagenicity The product contains a substance that is classified as: Suspected of causing genetic defects.

Carcinogenicity The product contains no carcinogenic substances.

Reproductive toxicity No data available.

Specific target organ toxicity STOT - single exposure: No data available.

STOT – repeated exposure: No data available.

Acute and chronic health hazards May cause a allergic skin reaction.

Acute toxicity **LD/LC50 values that are relevant for classification:**		
Pyrogallol		
Oral	LD50	790mg/kg (rat)
Triethanolamine		
Oral	LD50	6,400 mg/kg (rat)
L-Ascorbic Acid		
Oral	LD50	11900 mg/kg (rat)
1-phenyl-3-pyrazolidone (Phenidone A)		
Oral	LD50	300 mg/kg (rat)

SECTION 12: Ecological Information

12.1. Toxicity

Toxicity The product contains a substance which is harmful to aquatic organisms.

PYROGALLOL

Acute toxicity – fish	LC50, 96 hours: 41.8 mg/l, Danio rerio (zebra fish)
Acute toxicity – aquatic invertebrates	EC50, 24 hours: 47.8 mg/l, Daphnia magna (Water flea)
Acute toxicity – algae	No data available
Acute toxicity – bacteria	EC50, 16 hours: 3.8 mg/l, Pseudomonas putida

TRIETHANOLAMINE

Acute toxicity – fish	LC50, flow-through test - 96 hours: 11,800 mg/l, Pimephales promelas (fathead minnow)
Acute toxicity – aquatic invertebrates	EC50, static test – 48 hours: 609.88 mg/l, Ceriodaphnia dubia (water flea)
Acute toxicity – algae	ErC50, static test - 72 hours: 216 mg/l, Desmodesmus subspicatus (green algae)
Acute toxicity – bacteria	IC50, static test - 3 hours activated sludge: > 1,000 mg/l

L-ASCORBIC ACID

Acute toxicity – fish	LC50, 96 hours: 1,020 mg/l, Oncorhynchus mykiss (rainbow trout)
Acute toxicity – aquatic invertebrates	EC50, 48 hours: 360 mg/l, Daphnia magna (Water flea)
Acute toxicity – algae	IC50, 72 hours: 1,750 mg/l, Desmodesmus subspicatus (green algae)
Acute toxicity – bacteria	EC50, 16 hours: 140mg/l, Pseudomonas putida

1-PHENYL-3-PYRAZOLIDONE (PHENIDONE A)

Acute toxicity – fish	No data available
Acute toxicity – aquatic invertebrates	EC50, 48 hours: 6.25 mg/l, Daphnia magna (Water flea)
Acute toxicity – algae	No data available
Acute toxicity – bacteria	EC50, 5 min: 3.02 mg/l, photobacterium phosphoreum

12.2. Persistence and degradability

Persistence and degradability	Triethanolamine is rapidly biodegradable. L-ascorbic acid and pyrogallol are readily biodegradable. 1-phenyl-3-pyrazolidone (Phenidone A) is inherently biodegradable.

12.3. Bioaccumulation

Bioaccumulation	No data available. Unlikely as product is soluble in water.

12.4. Mobility in soil

Mobility in soil Product is soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Used, diluted, and spent solutions may be allowed to be discharged to sanitary sewer by permit IF allowed by local regulations. Consult your local authority for advice. Waste may have to be pre-treated before discharge. Consult local authorities before discharging any waste to sewer. Waste that cannot be discharged to sewer may have to be handled by a licensed hazardous waste contractor.

Waste class 09 01 01

SECTION 14: Transport information

Not regulated for all modes of transportation.

UN Number (ADR/RID, IMDG, IATA)	N/A
UN Proper Shipping Name (ADR/RID, IMDG, IATA)	Not applicable
Transport Hazard Class(es) ADR/RID, IMDG, IATA	None
Packing group (ADR/RID, IMDG, IATA)	Not applicable
Environmental hazards	None
Special precautions for user	None
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
Transport/Additional Information: ADR/RID, IMDG, IATA	None

SECTION 15: Regulatory information

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

EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.
Guidance	Workplace Exposure Limits EH40.

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

General information	Zone Imaging Ltd believe the information and recommendations contained herein are based on correct and factual data. However, no express or implied guarantee or warranty of any kind is made with respect to this information. Use this information only to supplement other information you have gathered and then make an independent determination about the completeness and suitability of all information to ensure the proper use and disposal of this product and the health and safety of employees and customers.
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Abbreviations and acronyms	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road (Accord Européen sur le Transport des Marchandises Dangereuses par Route)

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EC: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration at which 50% of the animals will be expected to die.

LD50: Lethal dose at which 50% of the animals will be expected to die.

EC50: Effective concentration of test substance which results in a 50 percent reduction in either algae growth (EbC50) or algae growth rate (ErC50) or Daphina immobilization.

Hazard statements in full

EUH208 - Contains pyrogallol. May produce an allergic reaction.