

# Safety data sheet

according to 1907/2006/EC, Article 31

Date Printed 16.02.2022

Version number 1

Revision Date 16.02.2022

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

- **1.1 Product identifier**
- **Trade name: Ilford Phenisol Developer**
- **Article number:** AGP9106
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Photographic developer solution.
- **Application of the substance / the preparation:** Photographic Developer Solution
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier.**  
Agar Scientific Ltd  
Parsonage Lane  
Stansted CM24 8GF  
United Kingdom  
sales@agarscientific.com  
Tel: +44 (0) 1279 813 519
- **Further information obtainable from:** Technical Support
- **1.4 Emergency telephone number:** 24 hours: +44 (0)1856 407333

## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



health hazard

- Muta. 2            H341 Suspected of causing genetic defects.  
Carc. 2            H351 Suspected of causing cancer.



corrosion

- Eye Dam. 1        H318 Causes serious eye damage.



environment

- Aquatic Acute 1 H400 Very toxic to aquatic life.



- Skin Irrit. 2        H315 Causes skin irritation.  
Skin Sens. 1       H317 May cause an allergic skin reaction.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05



GHS07



GHS08



GHS09

- **Signal word** Danger

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**Trade name: Ilford Phenisol Developer**

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**Hazard-determining components of labelling:**

 Hydroquinone  
 sodium hydroxide

**Hazard statements**

 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H317 May cause an allergic skin reaction.  
 H341 Suspected of causing genetic defects.  
 H351 Suspected of causing cancer.  
 H400 Very toxic to aquatic life.

**Precautionary statements**

 P101 If medical advice is needed, have product container or label at hand.  
 P102 Keep out of reach of children.  
 P103 Read carefully and follow all instructions.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a POISON CENTER/doctor.  
 P321 Specific treatment (see on this label).  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 Other hazards**
**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients

**3.2 Chemical characterisation: Mixtures**

 · **Description:** Mixture of substances listed below with nonhazardous additions.

**Dangerous components:**

CAS: 123-31-9 EINECS: 204-617-8	Hydroquinone ⚠ Muta. 2, H341; Carc. 2, H351; ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	5.0%
CAS: 584-08-7 EINECS: 209-529-3	potassium carbonate ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319	5.0%
CAS: 140-01-2 EINECS: 205-391-3	Diethylenetriamie pentaacetic acid sodium salt ⚠ STOT RE 2, H373; ⚠ Acute Tox. 4, H332	1.0%
CAS: 1310-73-2 EINECS: 215-185-5	sodium hydroxide ⚠ Skin Corr. 1A, H314; ⚠ Acute Tox. 4, H302	1.0%

 · **Additional information:** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

**4.1 Description of first aid measures**

 · **General information:** Immediately remove any clothing soiled by the product.

**After inhalation:**

 Supply fresh air.  
 No adverse effects are anticipated from inhalation.  
 Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.  
 Get medical attention.

**After skin contact:**

Wash with water and soap and rinse thoroughly.

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Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Contact physician if irritation continues.

· **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Contact physician if irritation persists.

· **After swallowing:** Rinse mouth thoroughly. Get medical attention if any discomfort continues.

· **4.2 Most important symptoms and effects, both acute and delayed**

Inhalation: No specific symptoms noted.

Ingestion: No specific symptoms noted.

Skin Contact: May cause skin sensitisation.

Eye Contact: Irritation of eyes and mucous membranes.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

## SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

Use fire extinguishing methods suitable to surrounding conditions.

The product is non-combustible. Use extinguishing media appropriate for surrounding fire.

· **5.2 Special hazards arising from the substance or mixture**

The product is non-combustible. If heated, harmful vapors may be formed.

· **5.3 Advice for firefighters** Avoid breathing fire vapors.

· **Protective equipment:**

Use protective equipment appropriate for surrounding materials. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

## SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective gloves and glasses.

Wear protective clothing as described in Section 8 of this material safety data sheet. Avoid contact with skin and eyes. Provide adequate ventilation.

· **6.2 Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Do not discharge into drains, water courses or onto the ground. The product should not be dumped in nature but collected and delivered according to agreement with the local authorities.

· **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Small quantities may be flushed to drains with plenty of water. Prevent discharge of larger quantity to drain. Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Wash contaminated area with water. Do not let washing down water contaminate ponds or waterways.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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## SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
 Ensure good ventilation/exhaustion at the workplace.  
 Open and handle receptacle with care.  
 Prevent formation of aerosols.  
 Provide good ventilation. Avoid spilling, skin and eye contact. Do not eat, drink or smoke when using the product. Read and follow manufacturer's recommendations.
- **Information about fire - and explosion protection:**  
 Extinguishing media: Water fog - dried resin only.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
 Store in closed original container in a dry place. Store under well-ventilated conditions at a temperature below 25°C.
- **Information about storage in one common storage facility:** No data available.
- **Further information about storage conditions:**  
 Keep container tightly sealed.  
 No data available.
- **Storage class:** Chemical storage.
- **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:**  
 Provide adequate ventilation. Must not be handled in confined space without sufficient ventilation.

<b>Ingredients with limit values that require monitoring at the workplace:</b>	
<b>123-31-9 Hydroquinone</b>	
WEL	Long-term value: 0.5 mg/m <sup>3</sup>
<b>1310-73-2 sodium hydroxide</b>	
WEL	Short-term value: 2 mg/m <sup>3</sup>

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Keep away from foodstuffs, beverages and feed.  
 Remove all soiled and contaminated clothing  
 Wash hands before breaks and at the end of work.  
 Store protective clothing separately.  
 Avoid contact with the skin.  
 Avoid contact with the eyes and skin.
- **Respiratory protection:**  
 In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.  
 Respiratory protection not required.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **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**

· **General Information**

· **Appearance:**

· <b>Form:</b>	Liquid
· <b>Colour:</b>	Colourless
· <b>Odour:</b>	Odourless
· <b>Odour threshold:</b>	Not determined.

· **pH-value at 20 °C:** 10 (Conc. Solution)

· **Change in condition**

· <b>Melting point/freezing point:</b>	Undetermined.
· <b>Initial boiling point and boiling range:</b>	>100 °C

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Not applicable.

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.

· **Vapour pressure:** Not determined.

· **Density at 20 °C:** 1.235 g/cm<sup>3</sup>

· **Relative density** Not determined.

· **Vapour density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with water:**

100% soluble

· **Partition coefficient: n-octanol/water:** Not determined.

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· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Water:</b>	88.0 %
<b>VOC (EC)</b>	0.00 %
<b>Solids content:</b>	0.0 %
· <b>9.2 Other information</b>	No further relevant information available.

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No specific reactivity hazards associated with this product.
- **10.2 Chemical stability**  
Stable under the prescribed storage conditions. No particular stability concerns.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Will not polymerise.
- **10.4 Conditions to avoid**  
Avoid excessive heat for prolonged periods of time. Avoid contact with acids.
- **10.5 Incompatible materials:**  
Strong acids. Avoid contact with other photographic solutions and/or cleaning compounds.
- **10.6 Hazardous decomposition products:**  
Fire or high temperatures create: Sulfurous gases (SO<sub>x</sub>).

## SECTION 11: Toxicological information

- **11.1 Information on 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.
- **Acute toxicity** Based on available data, the classification criteria are not met.

· <b>LD/LC50 values relevant for classification:</b>
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<b>123-31-9 Hydroquinone</b>
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Oral   LD50   320 mg/kg (rat)
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<b>1310-73-2 sodium hydroxide</b>
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Oral   LD50   2,000 mg/kg (rat)
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- **Specific symptoms in biological assay:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye damage.
- **Respiratory or skin sensitisation**  
May cause an allergic skin reaction.
- **Other information (about experimental toxicology):**  
Hydroquinone: Carcinogen Category 3. Mutagen Category 3. ACGIH A3 IARC 3 IARC Animal Carcinogen List. IARC Int. Agency for Cancer Research.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity**  
Suspected of causing genetic defects.
- **Carcinogenicity**  
Suspected of causing cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.

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- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

- **12.1 Toxicity** The product contains a substance that is very toxic to aquatic organisms.
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** There are no data on the degradability of this product.
- **12.3 Bioaccumulative potential** No data available on bioaccumulation.
- **12.4 Mobility in soil** The product is soluble in water.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**  
 Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
 Do not allow product to reach ground water, water course or sewage system.  
 Must not reach sewage water or drainage ditch undiluted or unneutralised.  
 Danger to drinking water if even small quantities leak into the ground.  
 Very toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects**  
 HYDROQUINONE (CAS: 123-31-9)  
 LC 50, 96 Hrs, Fish mg/l 0.10-0.18 (Fathead Minnow)  
 EC 50, 48 Hrs, Daphnia, mg/l 0.05  
 IC 50, 72 Hrs, Algae, mg/l 1.0  
  
 1-PHENYL-3-PYRAZOLIDONE (CAS: 92-43-3)  
 LC 50, 96 Hrs, Fish mg/l >1  
  
 Diethylenetriamine Pentaacetic Acid Na5 (CAS: 140-01-2)  
 LC 50, 96 Hrs, Fish mg/l >1000 (Iepomis macrochirus)  
 EC 50, 48 Hrs, Daphnia, mg/l >500 (daphnia magna)

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
 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. Do not discharge to septic system. Waste that cannot be discharged to sewer may have to be handled by a licensed hazardous waste contractor.
- **Recommendation:** Disposal must be made according to official regulations.

## SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN3082

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<ul style="list-style-type: none"> <li>· 14.2 UN proper shipping name</li> <li>· ADR</li> <li>· IMDG</li> <li>· IATA</li> </ul>	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYDROXIDE) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYDROXIDE, Hydroquinone), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYDROXIDE)
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<ul style="list-style-type: none"> <li>· 14.3 Transport hazard class(es)</li> <li>· ADR, IMDG, IATA</li> </ul>	9 Miscellaneous dangerous substances and articles. 9
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<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> </ul>	9 Miscellaneous dangerous substances and articles. 9
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<ul style="list-style-type: none"> <li>· 14.4 Packing group</li> <li>· ADR, IMDG, IATA</li> </ul>	III
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<ul style="list-style-type: none"> <li>· 14.5 Environmental hazards:</li> <li>· Marine pollutant:</li> <li>· Special marking (ADR):</li> <li>· Special marking (IATA):</li> </ul>	Product contains environmentally hazardous substances: Hydroquinone Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
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<ul style="list-style-type: none"> <li>· 14.6 Special precautions for user</li> <li>· Hazard identification number (Kemler code):</li> <li>· EMS Number:</li> <li>· Segregation groups</li> <li>· Stowage Category</li> </ul>	Warning: Miscellaneous dangerous substances and articles. 80 F-A,S-F Alkalis A
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<ul style="list-style-type: none"> <li>· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</li> </ul>	Not applicable.
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<ul style="list-style-type: none"> <li>· Transport/Additional information:</li> <li>· ADR</li> <li>· Limited quantities (LQ)</li> <li>· Excepted quantities (EQ)</li> <li>· Transport category</li> <li>· Tunnel restriction code</li> <li>· IMDG</li> <li>· Limited quantities (LQ)</li> </ul>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml 3 E 5L
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<ul style="list-style-type: none"> <li>· <b>Excepted quantities (EQ)</b></li> </ul>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (SODIUM HYDROXIDE), 9, III

## SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category** E1 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

This information is based on our present knowledge and should assist the user with the safe handling of this material when properly applied. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**  
 H302 Harmful if swallowed.  
 H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H332 Harmful if inhaled.  
 H341 Suspected of causing genetic defects.  
 H351 Suspected of causing cancer.  
 H373 May cause damage to organs through prolonged or repeated exposure.  
 H400 Very toxic to aquatic life.
- **Department issuing SDS:** Sales department
- **Contact:**  
 sales@agarscientific.com  
 Tel: +44 (0) 1279 813 519
- **Abbreviations and acronyms:**  
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 VOC: Volatile Organic Compounds (USA, EU)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 Acute Tox. 4: Acute toxicity – Category 4  
 Skin Corr. 1A: Skin corrosion/irritation – Category 1A  
 Skin Irrit. 2: Skin corrosion/irritation – Category 2  
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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Skin Sens. 1: Skin sensitisation – Category 1  
Muta. 2: Germ cell mutagenicity – Category 2  
Carc. 2: Carcinogenicity – Category 2  
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2  
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

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**\* Data compared to the previous version altered.**

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