

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

### 1.1 Product identifier

Trade name: ADOX ADOTOL NE  
NEUTOL NE

Article number: 105102

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

No further relevant information available.

Application of the substance / the mixture Developer for photographic use

### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer/Supplier:

ADOX Fotowerke GmbH  
 Pieskower Str. 30 A  
 15526 Bad Saarow / Germany  
 www.adox.de

Further information obtainable from: ADOX: +49 (0) 33631 6459-0 E-mail: info@adox.de

1.4 Emergency telephone number: Poison Information Centre Berlin (Germany): +49 (0) 30 - 30686 790

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008



GHS08

Muta. 2 H341 Suspected of causing genetic defects.

Carc. 2 H351 Suspected of causing cancer.



GHS05

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

#### Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful

R40-68: Limited evidence of a carcinogenic effect. Possible risk of irreversible effects.



Xi; Irritant

R36: Irritating to eyes.



Xi; Sensitising

R43: May cause sensitisation by skin contact.

#### Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

(Contd. on page 2)

**Trade name: ADOX ADOTOL NE**  
**NEUTOL NE**

(Contd. of page 1)

**. Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

**. 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

**. Signal word Danger**
**. Hazard-determining components of labelling:**

 tetrasodium ethylene diaminetetraacetate  
 hydroquinone

**. 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.

**. Precautionary statements**

 P264 Wash thoroughly after handling.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 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 or doctor/physician.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P501 Dispose of contents/container in accordance with local 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 and with nonhazardous additions.

**. Dangerous components:**

CAS: 584-08-7 EINECS: 209-529-3 Reg.nr.: 01-2119532646-36	potassium carbonate ☒ Xi R36/38 ☒ Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	10-25%
CAS: 64-02-8 EINECS: 200-573-9 Index number: 607-428-00-2	tetrasodium ethylene diaminetetraacetate ☒ Xn R22; ☒ Xi R41 ☒ Eye Dam. 1, H318; ☒ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315	1-5%
CAS: 123-31-9 EINECS: 204-617-8 Index number: 604-005-00-4 Reg.nr.: 01-2119524016-51	hydroquinone ☒ Xn R22-40-68; ☒ Xi R41; ☒ Xi R43; ☒ N R50 Carc. Cat. 3, Muta. Cat. 3 ☒ Muta. 2, H341; Carc. 2, H351; ☒ Eye Dam. 1, H318; ☒ Aquatic Acute 1, H400 (M=10); ☒ Acute Tox. 4, H302; Skin Sens. 1, H317	<2.5%

(Contd. on page 3)

**Trade name: ADOX ADOTOL NE**  
**NEUTOL NE**

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

(Contd. of page 2)

## SECTION 4: First aid measures

- . **4.1 Description of first aid measures**
- . **General information:** Immediately remove any clothing/shoes soiled by the product.
- . **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- . **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- . **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- . **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.
- . **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- . **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:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- . **5.2 Special hazards arising from the substance or mixture**  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide (CO)  
Sulphur dioxide (SO<sub>2</sub>)  
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- . **5.3 Advice for firefighters**
- . **Protective equipment:** Do not inhale explosion gases or combustion gases.

## SECTION 6: Accidental release measures

- . **6.1 Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Wear protective clothing.
- . **6.2 Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- . **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.
- . **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.

## SECTION 7: Handling and storage

- . **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- . **Information about fire - and explosion protection:** Protect from heat.
- . **7.2 Conditions for safe storage, including any incompatibilities**
- . **Storage:**
- . **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.

(Contd. on page 4)

**Trade name: ADOX ADOTOL NE**  
**NEUTOL NE**

(Contd. of page 3)

**. Information about storage in one common storage facility:**

- Store away from oxidising agents.
- Do not store together with alkalis (caustic solutions).
- Store away from metals.

**. Further information about storage conditions:**

- Keep container tightly sealed.
- Protect from heat and direct sunlight.
- Protect from exposure to the light.
- Recommended storage temperature: 5-30 °C

**. 7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

**. Additional information about design of technical facilities:** No further data; see item 7.

**. 8.1 Control parameters**

**. Ingredients with limit values that require monitoring at the workplace:**

**123-31-9 hydroquinone (1- <3%)**

WEL	Long-term value: 0.5 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:**

- The usual precautionary measures are to be adhered to when handling chemicals.
- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.

**. Respiratory protection:** Ensure adequate ventilation

**. Protection of hands:**



Protective gloves

**Impervious gloves**

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

Butyl rubber, BR  
 Nitrile rubber, NBR  
 Neoprene gloves

**. Penetration time of glove material**

Glove material	breakthrough-time	layer thickness
Butyl rubber:	>480 min	≥0,4mm
Nitrile rubber:	>480 min	≥0,38mm
Neoprene:	>240 min	≥0,65mm

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

(Contd. on page 5)

**Trade name: ADOX ADOTOL NE**  
**NEUTOL NE**

(Contd. of page 4)

## . Eye protection:



Tightly sealed goggles

. Body protection: Protective work clothing

## SECTION 9: Physical and chemical properties

## . 9.1 Information on basic physical and chemical properties

## . General Information

## . Appearance:

. Form:	Fluid
. Colour:	Light yellow
. Odour:	Characteristic
. Odour threshold:	Not determined.

. pH-value at 20 °C: &gt;11.5

## . Change in condition

. Melting point/Melting range:	Undetermined.
. Boiling point/Boiling range:	100 °C

. Flash point: Not applicable.

## . Ignition temperature:

. Decomposition temperature: Not determined.

. Self-igniting: Product is not selfigniting.

. Danger of explosion: Product does not present an explosion hazard.

## . Explosion limits:

. Lower:	Not determined.
. Upper:	Not determined.

. Vapour pressure at 20 °C: 23 hPa

. Density at 20 °C:	1.375 g/cm <sup>3</sup>
. Relative density	Not determined.
. Vapour density	Not determined.
. Evaporation rate	Not determined.

## . Solubility in / Miscibility with water:

Fully miscible.

. Partition coefficient (n-octanol/water): Not determined.

## . Viscosity:

. Dynamic:	Not determined.
. Kinematic:	Not determined.

## . Solvent content:

. Organic solvents:	0.0 %
. Water:	~60 %

. 9.2 Other information: No further relevant information available.

EN

(Contd. on page 6)

**Trade name: ADOX ADOTOL NE**  
**NEUTOL NE**

(Contd. of page 5)

## SECTION 10: Stability and reactivity

- . **10.1 Reactivity**
- . **10.2 Chemical stability**
- . **Thermal decomposition / conditions to be avoided:** Stable at environment temperature.
- . **10.3 Possibility of hazardous reactions** Reacts with acids, alkalis and oxidising agents.
- . **10.4 Conditions to avoid** No further relevant information available.
- . **10.5 Incompatible materials:** Under certain fire conditions, traces of other toxic gases cannot be excluded.
- . **10.6 Hazardous decomposition products:** Irritant gases/vapours

## SECTION 11: Toxicological information

- . **11.1 Information on toxicological effects**

. **Acute toxicity:**

. **LD/LC50 values relevant for classification:**

### 123-31-9 hydroquinone

Oral	LD50	320 mg/kg (rat)
------	------	-----------------

. **Primary irritant effect:**

- . **on the skin:** Irritant to skin and mucous membranes.
- . **on the eye:** Strong irritant with the danger of severe eye injury.
- . **Sensitisation:** Sensitisation possible through skin contact.

. **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

. **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

Muta. 2, Carc. 2

## SECTION 12: Ecological information

- . **12.1 Toxicity**

. **Aquatic toxicity:**

### 123-31-9 hydroquinone

EC50	48h: 0.29 mg/l (daphnia magna (Großer Wasserfloh))
LC50	96h: 0.044 mg/l (Pimephales promelas)

. **12.2 Persistence and degradability** No further relevant information available.

. **12.3 Bioaccumulative potential** No further relevant information available.

. **12.4 Mobility in soil** No further relevant information available.

. **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.

Danger to drinking water if even small quantities leak into the ground.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

. **12.5 Results of PBT and vPvB assessment**

. **PBT:** Not applicable.

. **vPvB:** Not applicable.

. **12.6 Other adverse effects** No further relevant information available.

EN

(Contd. on page 7)

**Trade name: ADOX ADOTOL NE**  
**NEUTOL NE**

(Contd. of page 6)

### 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.

**. European waste catalogue**

09 01 01*	water-based developer and activator solutions
-----------	---

**. Uncleaned packaging:**

**. Recommendation:** Disposal must be made according to official regulations.

**. Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

**. 14.1 UN-Number**

**. ADR, ADN, IMDG, IATA** Void

**. 14.2 UN proper shipping name**

**. ADR, ADN, IMDG, IATA** Void

**. 14.3 Transport hazard class(es)**

**. ADR, ADN, IMDG, IATA**

**. Class** Void

**. 14.4 Packing group**

**. ADR, IMDG, IATA** Void

**. 14.5 Environmental hazards:**

**. Marine pollutant:** No

**. 14.6 Special precautions for user**

Not applicable.

**. 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

**. UN "Model Regulation":**

-

### SECTION 15: Regulatory information

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

No further relevant information available.

**. 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. 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.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects.

H351 Suspected of causing cancer.

(Contd. on page 8)

**Trade name: ADOX ADOTOL NE**  
**NEUTOL NE**

(Contd. of page 7)

- H400 Very toxic to aquatic life.  
 R22 Harmful if swallowed.  
 R36/38 Irritating to eyes and skin.  
 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.

**Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
 ICAO: International Civil Aviation Organisation  
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)  
 ADR: Accord européen sur le transport 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)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 Acute Tox. 4: Acute toxicity, Hazard Category 4  
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
 Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1  
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
 Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
 Muta. 2: Germ cell mutagenicity, Hazard Category 2  
 Carc. 2: Carcinogenicity, Hazard Category 2  
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3  
 Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1