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1<sup>st</sup>. ed. 02.05.06

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## 1. Substance/ Indications for Preparation and Producer/ Distributor

a) Product Details:

Trade name: Adox Adolux ADX Developer

b) Producer and Distributor: ADOX Fotoimpex GmbH

Producer:

Owner:

Phone: 030 28599081

E-mail: info@fotoimpex.de

Distributor:

Owner:

Phone:

E-mail:

Assistance and Information:

Emergencies: Phone +49 (0) 30 19240

Advice Centre for Symptoms of Poisoning and Embryonic Toxicology in Berlin, Germany

## 2. Composition/ Ingredients

a) Harmful Ingredients (Gravimetric Proportions of Substance in % - CAS-No. - Symbol and Risk Phrases of Pure Substance)

Part A:

5-20 % Sodium sulfite | 7757-83-2 | Xi | R 36/ 37/ 38

0.5-5 % Diethyleneglycol | 111-46-6 | Xn | R 20/ 21/ 22

0.1-2 % Sodium hydroxide | 1310-73-2 | C | R 35

0,5-3 % Hydroquinone | 123-31-9 | Xn, N | R 22-40-41-43-50-68

0.1-2 % Hydroxy-methyl-phenidone | 13047-13-7 | Xn | R 36/ 37/ 38

5-10 % Potassium carbonate | 584-08-7 | Xn | R 22-36

Part B:

0.1-1,5 % Potassium thiocyanate | 333-20-0 | Xn | R 20/ 21/ 22-32

1 – 6 % Diethylenetriamine penta acetic acid (sodium salt) | 140-01-2 | Xi | R 36

b) Description: developer for photographic purposes, especially the developing of B&W Films

### 3. Possible Risks

Part A: Irritates eyes and skin. Limited evidence of carcinogenic effect . Contact with skin can lead to sensibilisation. Possible risk of irreversible effects. Harmful if swallowed.

Part B: Irritates eyes.

### 4. First Aid

- a) If inhaled: casualty to lie down quietly and to be exposed to fresh air. If symptoms persist consult a doctor.
- b) Eye contact: rinse with plenty of water and consult a doctor
- c) Skin contact: rinse thoroughly with plenty of water
- d) If swallowed: casualty to drink plenty of water. Do not under any circumstances cause casualty to vomit - Vomiting should only be triggered off by the casualty himself when he is fully conscious. If casualty is unconscious, **do not** under any circumstances insert anything into his mouth or pour anything down his throat. Consult a doctor.
- e) Special information for doctor: none

### 5. Firefighting

- a) Suitable extinguishing agents: water, foam, slaked lime
- b) Extinguishing agents unsuitable for safety reasons: none
- c) Special risks: dangerous fumes in case of fire: sulfur dioxide (Part A)
- d) Special safety precautions: do not inhale explosion or incendiary gas; wear breathing apparatus and protective clothing
- e) Unusual dangers of fire and explosion: none

## **6. Unintentional Release**

- a) Precautions regarding persons: use breathing apparatus if exposed to vapours/ dust/ aerosol
- b) Measures for environmental protection: keep away from surface or ground water
- c) Cleaning: take up with inert absorbent and collect in suitable containers, label according to refuse laws, and then dispose of.
- d) Additional hints: rinse residue with water

## **7. Handling and Storage**

- a) Hints for secure handling: avoid long-term and repeated contact with skin; no other special measures are required if product is handled correctly.
- b) Hints for protection against fire and explosion: no special measures required
- c) Requirements regarding store rooms and containers: use a floor tub without drain. Keep container closed.
- d) Hints for storage: do not store together with incompatible substances and lining materials.
- e) Ventilation: provide for good ventilating. Adapt ventilation to conditions of work environment.
- f) Further details as to conditions of storage: none

## **8. Restriction of Exposition and Personal Equipment for Protection**

- a) Hints for layout of technical installations: none
- b) Ingredients with limits to be observed: Part A: sulphur dioxide 2ppm (MAK 1993)
- c) Breathing apparatus: not necessary with sufficient ventilation
- d) Eye protection: wear protective goggles
- e) Hand protection: wear protective gloves
- f) Body protection: wear light protective clothing made of synthetic material
- g) Additional hint: do not eat, drink or smoke while at work.

## 9. Physical and Chemical Details

### Part A:

- a) physical state: liquid
- b) colour: yellow
- c) smell: specific
- d) density: 1.23
- e) steam pressure at 20°C: unknown
- f) boiling point: > 100°C
- g) solubility in water: 100%
- h) pH value: 10,5
- i) flash point: n.a.
- j) inflammability: n.a.
- k) temperature of ignition: n.a.
- l) self-inflammability: n.a.
- m) incendiary features: n.a.
- n) limits of explosion (upper or lower respectively): n.a.
- o) viscosity at 20°C: unknown

### Part B:

- a) physical state: liquid
- b) colour: white up to light yellow
- c) smell: none
- d) density: 1
- e) steam pressure at 20°C: unknown
- f) boiling point: > 100°C

g) solubility in water: 100%

- h) pH value: 11,85
- i) flash point: n.a.
- j) inflammability: n.a.
- k) temperature of ignition: n.a.
- l) self-inflammability: n.a.
- m) incendiary features: n.a.
- n) limits of explosion (upper or lower respectively): n.a.
- o) viscosity at 20°C: unknown

## **10. Stability and Reactivity**

- a) Stability: constant
- b) Incompatibility: reactions with strong acids, alkali and oxidants should be avoided
- c) Dangerous substances produced by decomposition: sulphur oxides (Part A)
- d) Health-damaging polymerisation: n.a.

## **11. Toxicity**

- a) Part A: LD 50 (rat, oral): 180 mg/kg; (rat, intravenous): 65 mg/kg  
Part B: LD 50 (rat, oral): > 10,000 mg/kg
- b) The product itself was not tested for its toxicological effects; the above statements have been deducted from the features of single components and ingredients of the product respectively.

## **12. Ecofriendliness**

- a) Degree of water pollution: Part A: 2, Part B: 2 [author's estimate]
- b) The preparation is alkaline and might be harmful to the environment. The product itself has not been tested as to its ecofriendliness. All details stated are deducted from the features of single components or ingredients respectively.

### **13. Disposal**

- a) The legal provisions relating to water and refuse must be complied with. When disposing of concentrates you must state the refuse key nr. 090101.
- b) The introduction into the sewerage system of used preparation is subject to local laws and may only be possible after neutralisation.
- c) Chemicals containers have to be emptied entirely and rinsed with water. Add rinsing solution to preparation.
- d) Non-contaminated packaging can be re-used.
- e) Contaminated packaging can be re-used after emptying and appropriate cleaning.

### **14. Transport**

- a) Air Transport - International Civil Aviation Organization (ICAO)

No entry (no dangerous good)

- b) Sea Transport - International Maritime Dangerous Goods (IMDG)

No entry (no dangerous good)

- c) Land Transport - GGVS/ ADR

No entry (no dangerous good)

### **15. Regulations**

- a) Labelling according to EC-Regulations/ Dangerous Substances Ordinance

Part A: Symbol: Xn | Risk Phrases: 22-36/38-40-43-68 | Safety Phrases: 2-24-26-46

Contains: 0,5 - 3 % Hydroquinone

Part B: Symbol: Xi | Risk Phrases: 36 | Safety Phrases: 25

- b) National Regulations

VfB (Ordinance regarding flammable liquids): n.a.

WGK (Degree of water pollution): 2

## **16. Disclaimer**

The particulars as stated in the present Safety Data Sheet are according to, and reflect our current state of knowledge. They have been provided on a voluntary basis so as to increase security and avoid damage. This Sheet does not constitute a guarantee of any kind. Any liability in this context is limited to the monetary value of the product we have delivered, and will only be incurred by us if the named product is faulty.

n. a.: not applicable