

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATIONChemical name/ Trade name: **FINOL**

Application/use: photographic developer
Company name: Moersch Photochemie, Am Heideberg 48
D 50354 Hürth, Germany
Telephone: ++49 22 33 943137

2 HAZARDS IDENTIFICATION**Information pertaining to particular dangers for man 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.

R 21/22 Harmful in contact with skin and if swallowed.

R 40 Limited evidence of a carcinogenic effect.

R 43 May cause sensitisation by skin contact.

R 68 Possible risk of irreversible effects.

Classification system

The classification is in line with current EC lists.

3 COMPOSITION/INFORMATION ON INGREDIENTS

This product is a preparation according to the law for chemicals.

Description: Aqueous solution containing organic substances

Name	Content	CAS	EINECS	CLASSIFICATION
1,2-DIHYDROXYBENZENE (Catechol)	1-5%	120-80-9	204-427-5	Xn R21/22 36/38
1,2,3-TRIHYDROXYBENZENE (Pyrogallol)	1-4%	87-66-1	201-762-9	Xn R-21/22, 52/53, 68
POTASSIUM BROMIDE	>1%	7758-02-3	231-830-3	Xn R-20/22, 36/37/38
DIETHYLENTRIAMINE PENTAACETIC ACID NA5	>1%	67-43-6	200-652-8	Xi R-36
SODIUM DISULPHITE	10-15%	7681-57-4	231-673-0	Xn; R22
N,N-DIETHYL-1,4- PHENYLENDIAMMONIUMSULFAT	1-4%	6065-27-6	227-995-6	Xn; R 21/22

Other information: further principal ingredient: Water

4 FIRST-AID MEASURES**· General information**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation Supply fresh air; consult doctor in case of symptoms.

After skin contact Instantly wash with water and soap and rinse thoroughly.

After eye contact

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

24 hour transportation emergency telephone number: Chemtrec 800-424-9300

After swallowing

Rinse out mouth and then drink plenty of water.
Induce vomiting and call for medical help.

5 FIRE-FIGHTING MEASURES

Suitable extinguishing agents

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents Water with a full water jet.

Special hazards caused by the material, its products of combustion or resulting gases:

Can be released in case of fire

Carbon monoxide (CO)

Nitrogen oxides (NO_x)

Protective equipment:

Do not inhale explosion gases or combustion gases.

Wear self-contained breathing apparatus.

6 ACCIDENTAL RELEASE MEASURES

Person-related safety precautions:

Wear protective clothing.

Measures for environmental protection:

Inform respective authorities in case product reaches water or sewage system.

Do not allow to enter drainage system, surface or ground water.

Measures for cleaning/collecting:

Dispose of contaminated material as waste according to item 13.

Additional information: See Section 8 for information on personal protection equipment.

7 HANDLING AND STORAGE

Personal precautions: Keep container tightly closed. Do not get in eyes and avoid contact with skin and clothing. Wash thoroughly after handling.

Prevention of Fire and Explosion: Substance is non-combustible. Select fire and explosion prevention measures according to the other used substances.

Storage :

Do not use any food containers - risk of mistake.

Keep out of the reach of children.

Containers have to be labelled clearly and permanently.

Store in the original container as much as possible.

Keep container tightly closed.

Storage temperature: 5-40°C

Protect from exposure to light.

8 OUTLINE DEMARCATION AND PERSONAL PROTECTION EQUIPMENT

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures should be adhered to general rules for handling chemicals.

Keep away from foodstuffs, beverages and food.

Take off immediately all contaminated clothing

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Do not eat, drink or smoke while working.

Breathing equipment: Not required.

Protection of hands:

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.

This recommendation applies only to the product stated in the Safety Data Sheet and supplied by us as well as to the purpose specified by us.

Only use chemical-protective gloves with CE-labelling of category III.

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

Material of gloves

Nitrile rubber, NBR

Butyl rubber, BR

Fluorocarbon rubber (Viton)

Chloroprene rubber, CR

Recommended thickness of the material: ≥ 0.5 mm

Penetration time of glove material

Value for permeation: Level ≥ 6 (480 min)

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Synthetic gloves

Value for permeation: Level:

≥ 3 (60 min)

Not suitable are gloves made of the following materials: Natural rubber, NR

Eye protection: Tightly sealed safety glasses.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	liquid
COLOR	yellow
ODOR	acid
SOLUBILITY	100% soluble in water
BOILING POINT (°C)	100°C - 212°F
RELATIVE DENSITY	1.16
pH-VALUE, CONC. SOLUTION	4.9

10 STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Dangerous reactions No dangerous reactions known

Dangerous products of decomposition: No dangerous decomposition products known

11 TOXICOLOGICAL INFORMATION

Toxicological tests: Catechol

Animal experiment: LD50 (oral rat): 260mg/kg
 LD50 (dermal rabbit): 800mg/kg

Toxicological tests:	Pyrogallol
Animal experiment:	LD50 (oral rat): 789mg/kg
Irritation-/ etching effect:	The details refer to the technical active agents
Skin:	irritating
Eyes:	strongly irritating
Sensitization:	sensitization of skin is possible.
Effect after repeated or longer continuous expose:	Possibility of irreversible damage if swallowed. Limited evidence of a carcinogenic effect.
Other details:	No further data.
Experiences from the practice:	No relevant data.
General remarks:	The classification was carried out according the calculation proceedings of preparation guideline(88/379/EEC).

12 ECOLOGICAL INFORMATION

Information about elimination (persistence and degradability): Not determined

Behaviour in environmental systems: Not determined

Mobility and bioaccumulation potential: Not determined

Ecotoxicological effects: Not determined

Aquatic toxicity: Not determined

Remark: Very toxic for fish

General notes:

Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

13 INDICATIONS FOR WASTE MANAGEMENT

The corresponding local water-and waste regulations must be observed. Do not dispose with domestic garbage. Do not let it get into the sewage system.

14 TRANSPORT INFORMATION

ADR CLASS: Not classified for transportation.

ROAD TRANSPORT NOTES: Not classified for road transport

RAIL TRANSPORT NOTES: Not classified for rail transport

SEA TRANSPORT NOTES: Not classified for sea transport

AIR TRANSPORT NOTES: Not classified for air transport

15 REGULATIONS

Identification by EC directives: The product is classified and labeled according to EC guidelines

Classification letter:
Danger identification:
R sentences:

Xn
Bad for health
R-36 Irritating to eyes.
R-40 Limited evidence of a carcinogenic effect.
R-43 May cause sensitisation by skin contact.
R-68 Possible risk of irreversible effects.

danger symbol:



S sentences:

S-2 Keep out of reach of children.
S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S-36/37 Wear suitable protective clothing and gloves. S-46 If swallowed seek medical advice immediately and show this container label.

Remarks:

This classification was carried out according to the calculation method for preparations guideline (88/379/EEC).

Water endangering class

2 (water endangering) hazardous for water

16 OTHER INFORMATION

Use: Photographic developer

Further information:

These details refer merely on this above product and not needs to be valid, if this is occurred with another product or in an arbitrary process.

The information corresponds to our today's knowledge, it is correct and complete and with best conscience, given without a guarantee, though. It shall describe our product with a view to safety requirements and has therefore not the meaning to assure of certain qualities. The responsibility of the use of this product remains on the user whether the information is complete and suitable for his special use.

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2 HAZARDS IDENTIFICATION

Bad for health: Possibility of irreversible damage if swallowed. Danger of serious eye damage.
Sensitization by skin contact possible.

3 COMPOSITION/INFORMATION ON INGREDIENTS

This product is a preparation according to the law for chemicals.

Description: Aqueous solution containing inorganic and organic substances

Name	Content	CAS	EINECS	CLASSIFICATION
POTASSIUM CARBONATE	25-30%	584-08-7	209-529-3	Xn R-22, 36
DIETHYLENTRIAMINE PENTAACETIC ACID NA5	>1%	67-43-6	200-652-8	Xi R-36
SODIUM SULPHITE	10-15%	7757-83-7	231-821-4	not classified
SODIUM HYDROGENCARBONATE	10-15%	144-55-8	205-633-8	not classified

Other information:

further principal ingredient: Water

4 FIRST-AID MEASURES

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin: In case of contact, immediately flush skin with plenty of water.

Ingestion: If swallowed, DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

5 FIRE-FIGHTING MEASURES

**Suitable extinguishing agents:
for security reasons**

Coordinate extinguishing precautions on the surrounding fire.
None confessed.

unsuitable extinguishing agents:

**Special endangerings of
the substance or the product itself**

released by fire can be : carbon monoxide, carbon dioxide

**its waste products of combustion or
arising gasses:**

sulfur dioxide

24 hour transportation emergency telephone number: Chemtrec 800-424-9300

Special protection equipment **None of special equipment required.**
Additional notes: Product does not burn.

6 ACCIDENTAL RELEASE MEASURES

Person drawee Use personal protective clothing.
Precautions:
Environment protective measures: Don't let it drain into the sewage system/surface water/ground water.
proceedings for cleaning/binding: liquid binding materials (e.g. sand, pebble sand
sawdust, universal binding agents).
Additional notes: Treat the taken material according to waste management section.

7 HANDLING AND STORAGE

Indications for safe contact: At proper use none of special precautions required.
**Points on fire-and
explosion protection:** The product is not combustible.
**Requirements on storerooms
and containers:** None of special requirements necessary. Keep container tightly
closed.
Together storage notes: None of special precautions required.
**More details on
Storage conditions:** Recommended storage temperature: 10 to 25 C
Store class: LGK 12 (VCI strategy)

8 OUTLINE DEMARCATION AND PERSONAL PROTECTION EQUIPMENT

HAND PROTECTION: Use chemical resistant gloves.
RESPIRATORY EQUIPMENT Respiratory protection not required.
EYE PROTECTION Use approved safety goggles or face shield.
OTHER PROTECTION Wear appropriate clothing to prevent any possibility of skin contact.

Material of gloves

Nitrile rubber, NBR

Butyl rubber, BR

Fluorocarbon rubber (Viton)

Chloroprene rubber, CR

Recommended thickness of the material: ≥ 0.5 mm

· Penetration time of glove material

Value for permeation: Level ≥ 6 (480 min)

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

· For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Synthetic gloves

Value for permeation: Level:

≥ 3 (60 min)

· **Not suitable are gloves made of the following materials:** Natural rubber, NR

· **Eye protection:** Tightly sealed safety glasses.

9 PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Color:	Blue
Smell:	Odourless.
pH value:	11.1 (20 C)
Boiling-point/boiling area:	≥ 100 C
Melting point/glaze area:	≤ 0 C
Flaming point:	Not applicable.
Imflammatory/ Catching light temperature:	Not inflammable.
Self flammability:	Not self-flammable
Fire promoting qualities:	Not combustible.
Danger of explosion:	No danger of explosion.
Vapor pression:	Remark: Corresponds to the vapor pression of water.
Density:	1.24 g/ml (20 C)
Pouring density:	Not applicable.
Solubility into water:	Mixable.
in other solvents:	No relevant data.
Distribution coefficient n-Oktanol/water:	No relevant data.
Dynamic viscosity:	no relevant data.
other details:	There are not further data.

10 STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Dangerous reactions: No dangerous reactions known

Dangerous products of decomposition: No dangerous decomposition products known

11 TOXICOLOGICAL INFORMATION

Irritation-/ etching effect: The details refer to the technical active agents

Skin: strongly irritating

Eyes: strongly irritating

Sensitization: Sensitization of skin is possible.

Effect after repeated or longer continuous expose:

Possibility of irreversible damage if swallowed.

Other details: No further data.

General remarks: There are no toxicological data. The classification was carried out according the calculation proceedings of preparation guideline (88/379/EEC).

16 OTHER INFORMATION

Use: Photographic developer

Further information:

These details refer merely on this above product and not needs to be valid, if this is occurred with another product or in an arbitrary process.

The information corresponds to our today's knowledge, it is correct and complete and with best conscience, given without a guarantee, though. It shall describe our product with a view to safety requirements and has therefore not the meaning to assure of certain qualities. The responsibility of the use of this product remains on the user whether the information is complete and suitable for his special use.

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