

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

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

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 organic substances

Name	Content	CAS	EINECS	CLASSIFICATION
1,2-DIHYDROXYBENZENE (Catechol)	4-6%	120-80-9	204-427-5	Xn R21/22 36/38
1-PHENYL-4-METHYL-4-HYDROXYMETHYL-3-PYRAZOLIDONE	>1%	13047-13-7	235-920-3	Xn R-48/22
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	1-5%	7681-57-4	231-673-0	Xn; R22
DIETHYLENE GLYCOL	>1%	111-46-6	203-872-2	Xn R-22

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

uitable extinguishing agents: Coordinate extinguishing precautions on the surrounding fire.
for security reasons None confessed.
unsuitable extinguishing agents:

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

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
Special protection equipment for fire fighting:	None of special equipment required.
Additional notes:	Product does not burn.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see section 8.

ENVIRONMENTAL PRECAUTIONS

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.

SPILL CLEAN UP METHODS

For waste disposal, see section 13. Wear necessary protective equipment. Small quantities may be flushed to drains with plenty of water. Absorb in vermiculite, dry sand or earth and place into containers. Wash contaminated area with water. Prevent discharge of larger quantity to drain

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

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.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	liquid
COLOR	yellow or amber
ODOR	odourless
SOLUBILITY	100% soluble in water
BOILING POINT (°C)	100°C - 212°F
RELATIVE DENSITY	1.14
pH-VALUE, CONC. SOLUTION	5.2

10 STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions
CONDITIONS TO AVOID:	-
MATERIALS TO AVOID	-
HAZARDOUS DECOMPOSITION PRODUCTS	-

11 TOXICOLOGICAL INFORMATION

Toxicological tests:	Catechol
Animal experiment:	LD50 (oral rat): 260mg/kg LD50 (skin rabbit): 800mg/kg
Irritation-/ etching effect:	The details refer to the technical active agents
Skin:	slightly 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.
Experiences from the practice:	No relevant data.
General remarks:	There are no toxicological data. The classification was carried out according the calculation proceedings of preparation guideline (88/379/EEC).

12 ECOLOGICAL INFORMATION

The product was not tested.
Remarks: Does not reach by correct use into the waste water.

13 INDICATIONS FOR WASTE MANEGEMENT

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:

Xi
harmful
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).

Relevant R-phrases

R-22 Harmful if swallowed. R-36/38 Irritating to eyes and skin.

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-46 If swallowed seek medical advice immediately

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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**REVISION DATE:
PRINTING DATE**

**15 Jun 2003
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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	50-60%	584-08-7	209-529-3	Xn R-22, 36
DIETHYLENTRIAMINE PENTAACETIC ACID NA5	>1%	67-43-6	200-652-8	Xi R-36

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: Coordinate extinguishing precautions on the surrounding fire.
for security reasons None confessed.

unsuitable extinguishing agents:
Special endangerings of released by fire can be : carbon monoxide, carbon dioxide

the substance or the product itself
its waste products of combustion or
arising gasses: sulfur dioxide

Special protection equipment **None of special equipment required.**

Additional notes: Product does not burn.

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

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:	Colourless
Smell:	Odourless.
pH value:	13.95(20 C)
Boiling-point/boiling area:	≥ 100 C
Melting point/glaze area:	≤ 0 C
Flaming point:	Not applicable.
Imflammability/ 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:	1.54 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).

12 ECOLOGICAL INFORMATION

The product was not tested.
Remarks: Does not reach by correct use into the waste water.

13 INDICATIONS FOR WASTE MANAGEMENT

Product: 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.

European waste catalog: 09 00 00: Waste from the photographic industry
09 01 00: Waste from the photographic industry
09 01 01: Developer and activators on water base

Packing: Not contaminated packings can be recycled .

Empty packing completely, wash well
(Cleaning agent: water), can be recycled afterwards

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 (GefStoffVO)

Classification letter: Xn
Danger identification: harmful
R sentences: R-36/38 Irritating to eyes and skin.
R-22 Harmful if swallowed

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).

**Technical instructions air:
Water endangering class (WGK):** This TA isn't a subject.
2 (water endangering)
(Classification in accordance with VwVwS, appendix 4)

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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