

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical name/ Trade name: **MT3 Vario Schwefeltoner
Part 1 Bleach**

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

2 HAZARDS IDENTIFICATION

Hazard description: Not applicable.

Information concerning particular hazards for human and environment:

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

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

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 BROMIDE	5-10%	7758-02-3	231-830-3	Xn R-20/22, 36/37/38
POTASSIUM HEXACYANOFERRATE (III)	20%	13746-66-2	237-323-3	R-32

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

Instructions :

Substance is incombustible. Select fire fighting measures according to the surrounding conditions.

In case of ambient fire:
Cool surrounding containers with water spray.
If possible, take container out of dangerous zone.
Stay on upwind side.

6 ACCIDENTAL RELEASE MEASURES

Methods for cleaning up: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination.

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.
Containers have to be labelled clearly and permanently.
Store in the original container as much as possible.
Keep container tightly closed.
Storage temperature: 1-50°C
Protect from exposure to light.

8 OUTLINE DEMARCATION AND PERSONAL PROTECTION EQUIPMENT

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

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists valid during the making were used as basis.

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Respiratory protection:

Not necessary if room is well-ventilated.
required at the appearance from fumes/vapours/aerosol. Filter ABEK

Protection of hands:

Protective gloves

Impervious gloves

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

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.

Butyl rubber, BR

Nitrile rubber, NBR

Penetration time of glove material

Material: Butylkautschuk: pervasion-time: \approx 480 min, strength of material: \approx 0,7 mm

gloves made of nitrile rubber, thickness \approx 0,38mm, and breakthrough-time >480min

Material: Neepren with pervasion-time: >240 min, strength of material: >0,65 mm

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

Eye protection: Safety glasses

Body protection: Protective work clothing

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	liquid
COLOR	yellow
ODOR	odourless
SOLUBILITY	100% soluble in water
BOILING POINT (°C)	100°C - 212°F
RELATIVE DENSITY	1.21
pH-VALUE, CONC. SOLUTION	6.1

10 STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions
CONDITIONS TO AVOID:	-
HAZARDOUS POLYMERISATION	Will not polymerize.
MATERIALS TO AVOID	Acids
HAZARDOUS DECOMPOSITION PRODUCTS	Hydrocyanic acid

11 TOXICOLOGICAL INFORMATION

12 ECOLOGICAL INFORMATION

Environmental data is not available.

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

This substance is not listed in the Annex I of Council Regulation No (EC) 304/2003.

15 REGULATIONS

**Identification
by EC directives:**

The product is classified and labeled according to EC guidelines

Relevant R-phrases

**R-22 Harmful if swallowed. R-36 Irritating to eyes.
R-32 Contact with acids liberates very toxic gas**

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 toner

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.

ISSUED BY:

Wolfgang Moersch – Moersch-Photochemie
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**REVISION DATE:
PRINTING DATE**

**12 Jun 1998
12 Jun 1998**

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical name/ Trade name: **MT3 Vario Schwefeltoner
Part 2 Toner**

Application/use: Oudorless photographic toner
Company name: Moersch Photochemie, Am Heideberg 48

D 50354 Hürth, Germany

Telephone: ++49 22 33 943137

2 HAZARDS IDENTIFICATION

Hazard description:

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.

R 22 Harmful if swallowed.

R 40 Limited evidence of a carcinogenic effect.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 63 Possible risk of harm to the unborn child.

Classification system:

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

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
Thiourea	10%	62-56-6	200-543-5	Carc. Cat. 3, Repr. Cat. 3; Xn, N; R 22-40-51/53-63

Other information: **further principal ingredient: Water**

4 FIRST-AID MEASURES

General information

Immediately remove any clothing soiled by the product.

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 complaints.

After skin contact: Immediately rinse with water.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: Call for a doctor immediately.

5 FIRE-FIGHTING MEASURES

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

Under certain fire conditions, traces of other toxic gases cannot be excluded.

Protective equipment: No special measures required.

6 ACCIDENTAL RELEASE MEASURES

Person-related safety precautions: Ensure adequate ventilation

Measures for environmental protection:

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.

Measures for cleaning/collecting:

Dispose contaminated material as waste according to item 13.

Pick up mechanically.

7 HANDLING AND STORAGE

Handling:

Information about fire - and explosion protection: No special measures required.

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Store under lock and key and out of the reach of children.

Recommended storage temperature: 1-30°C

8 OUTLINE DEMARCATION AND PERSONAL PROTECTION EQUIPMENT

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

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists valid during the making were used as basis.

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection:

Not necessary if room is well-ventilated.

required at the appearance from fumes/vapours/aerosol. Filter ABEK

Protection of hands:

Protective gloves

Impervious gloves

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

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.

Butyl rubber, BR
Nitrile rubber, NBR

Penetration time of glove material

Material: Butylkautschuk: pervasion-time: ³ 480 min, strength of material: ³0,7 mm
gloves made of nitrile rubber, thickness ³0,38mm, and breakthrough-time >480min

Material: Neepren with pervasion-time: >240 min, strength of material: >0,65 mm

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

Eye protection: Safety glasses

Body protection: Protective work clothing

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	liquid
COLOR	colourless
ODOR	odourless
SOLUBILITY	100% soluble in water
BOILING POINT (°C)	100°C - 212°F
RELATIVE DENSITY	1.11
pH-VALUE, CONC. SOLUTION	9.5

10 STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions
CONDITIONS TO AVOID: No decomposition if used according to specifications.

HAZARDOUS DECOMPOSITION PRODUCTS Irritant gases/vapours

11 TOXICOLOGICAL INFORMATION

LD/LC50 values relevant for classification:
62-56-6 thiourea

Oral LD50 1750 mg/kg (rat)
Dermal LD50 >2800 mg/kg (rabbit)

No irritant effect to eyes and skin.
No sensitizing effects known.

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: Harmful

12 ECOLOGICAL INFORMATION

Toxic for fish

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.
Also poisonous for fish and plankton in water bodies.
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.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Water

14 TRANSPORT INFORMATION

Land transport ADR/RID (cross-border)

ADR/RID class: 9 (M7) Miscellaneous dangerous substances and articles.

Danger code (Kemler): 90

UN-Number: 3077

Packaging group: III

Hazard label: 9

Description of goods: 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (thiourea)

Maritime transport IMDG:

MDG Class: -

Marine pollutant: No

Air transport ICAO-TI and IATA-DGR:

CAO/IATA Class: 9

UN/ID Number: 3077

Label 9

Packaging group: III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID THIOUREA 10%sol

15 REGULATIONS

Identification
by EC directives:

The product is classified and labeled according to EC guidelines

Code letter and hazard designation of product:

Xn Harmful

N Dangerous for the environment

Hazard-determining components of labelling:

Thioharnstoff / thiourea

Risk phrases:

22 Harmful if swallowed.

40 Limited evidence of a carcinogenic effect.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

63 Possible risk of harm to the unborn child.

Safety phrases:

2 Keep out of the reach of children.

13 Keep away from food, drink and animal feedingstuffs.

29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

36/37 Wear suitable protective clothing and gloves.

46 If swallowed, seek medical advice immediately and show this container or label.

16 OTHER INFORMATION

Use: Photographic toner

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.

ISSUED BY:

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REVISION DATE:

12 Jun 1998

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1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical name/ Trade name:

MT3 Vario Schwefeltoner
Part 3 Controller

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

2 HAZARDS IDENTIFICATION

Hazard description:

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.

R 36/38 Irritating to eyes and skin.

Classification system:

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

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
Sodium hydroxide	0,3%	1310-73-2	215-185-5	C; R 35
Potassium carbonate	50-60%	584-08-7	209-529-3	Xn R-22, 36

Other information: further principal ingredient: Water

4 FIRST-AID MEASURES

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

After skin contact: Immediately rinse with water.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: Call for a doctor immediately.

5 FIRE-FIGHTING MEASURES

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

Under certain fire conditions, traces of other toxic gases cannot be excluded.

Protective equipment: No special measures required.

6 ACCIDENTAL RELEASE MEASURES

Person-related safety precautions: Ensure adequate ventilation

Measures for environmental protection:

Dilute with plenty of water.

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

Measures for cleaning/collecting:

Dispose contaminated material as waste according to item 13.

Pick up mechanically.

7 HANDLING AND STORAGE

Handling:

Information about fire - and explosion protection: No special measures required.

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Store under lock and key and out of the reach of children.

Recommended storage temperature: 1-30°C

8 OUTLINE DEMARCATION AND PERSONAL PROTECTION EQUIPMENT

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

Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists valid during the making were used as basis.

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Respiratory protection:

Not necessary

Protection of hands:

Protective gloves

Impervious gloves

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

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.

Butyl rubber, BR

Nitrile rubber, NBR

Penetration time of glove material

Material: Butylkautschuk: pervasion-time: ³ 480 min, strength of material: ³0,7 mm

gloves made of nitrile rubber, thickness ³0,38mm, and breakthrough-time >480min

Material: Neepren with pervasion-time: >240 min, strength of material: >0,65 mm

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

Eye protection: Safety glasses

Body protection: Protective work clothing

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	liquid
COLOR	colourless
ODOR	odourless
SOLUBILITY	100% soluble in water
BOILING POINT (°C)	100°C - 212°F
RELATIVE DENSITY	1.3
pH-VALUE, CONC. SOLUTION	13.5

10 STABILITY AND REACTIVITY

STABILITY:	Stable under normal conditions
CONDITIONS TO AVOID:	No decomposition if used according to specifications.

HAZARDOUS DECOMPOSITION PRODUCTS	none
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11 TOXICOLOGICAL INFORMATION

LD/LC50 values relevant for classification:

1310-73-2 sodium hydroxide

Oral LD50 2000 mg/kg (rat)

Primary irritant effect:

On the skin: Irritant to skin and mucous membranes.

On the eye: Irritating effect.

Sensitization: No sensitizing effects known.

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

12 ECOLOGICAL INFORMATION

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow product to reach ground water, water course or sewage system.

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.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Water

14 TRANSPORT INFORMATION

Land transport ADR/RID (cross-border)

· ADR/RID class: -

· Maritime transport IMDG:

· Marine pollutant: No

15 REGULATIONS

Identification
by EC directives:

The product is classified and labeled according to EC guidelines

Code letter and hazard designation of product:

Xi Irritant

Risk phrases:

22 Harmful if swallowed.

36/38 Irritating to eyes and skin

Safety phrases:

2 Keep out of the reach of children.

13 Keep away from food, drink and animal feedingstuffs.

29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

46 If swallowed, seek medical advice immediately and show this container or label.

16 OTHER INFORMATION

Use: Photographic toner

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: 12 Jun 1998
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