

EC safetydata sheet

According to 91/155/EWG



Developer Easy Lith Part A

EC SAFETY DATA SHEETS ACCORDING TO 91/155/EWG

DEVELOPER EASY LITH PART A

1) substance-/ preparation and company name

Chemical name/ EASY LITH part A Lith developer
Trade name:
Application/use: Photographic developer
Company name: Wolfgang Moersch Photochemie GbR, Am Heideberg 48
D 50354 Hürth
Telephone: ++49 22 33 40 18 85

2) composition/details on components

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

Description:

Aqueous solution containing inorganic and organic substances

Composition/information about the components:

Name	Weight %	CAS no.	One EC number no.	EC index no.	Danger symbol; Danger notes
hydroquinone	10-15	123-31-9	204-617-8	604-005-00-4	Xn, N; R 22-40-41-43 50
diethylene glycol	25-30	111-46-6	203-872-2		
Other information:		further principal ingredient: Water			

3) Possible risks

Definition of dangers:

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

Special danger notes for man and environment:

The preparation contains hydroquinone, a substance classified with category 3 producing cancer and changing genetic ancestral estate. (Category 3: Substances, which because of possible carcinogenic effect on the man give reasons for concern upon which sufficient information for a satisfying judgment is given or substances which because of changing ancestral estate give reason for a concern.

These dangers can occur if these substances are taken in.

4) first aid pecautions

General notes:

change contaminated, wet clothing.
consult a doctor.

After breathing in:

None of special precautions required.

After skin contact:

at skin contact wash immediately with water and soap.
Wash clothing before reuse.

After eye contact:

At eye contact open eyelids wash with water, then immediately consult an eye specialist.

After swallowing:

Consult eye specialist at eye irritation.

Rinse out mouth with water and drink a lot of water afterwards

Developer Easy Lith Part A

Notes for the doctor: Don't start any vomiting. Consult doctor.

Symptoms: No symptoms confessed till now.

5) PRECAUTIONS for fire fighting

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.
for fire fighting:
Additional notes: Product does not burn.

6) PRECAUTIONS at unintentional release

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: 5 to 25 C
Store class: LGK 12 (VCI strategy)

8) outline demarcation and personal protection equipment

Additional indications for arrangement of technical plants: See section 7; no requirements going beyond this.
Components to be superwised in connection of the working place and limiting values 111-46-6 diethylenglykol MAK 44 mg/m³
10 ml/m³
Personal protection equipment:
Breathing protection: Sufficient ventilation, no additional protection necessary.
Hand protection: Gloves. Required qualities: Liquid proof.

Developer Easy Lith Part A

Eye protection:	Safety goggles.
Object protection:	personal protective clothing
Protection-and	Do not eat, drink, smoke sneeze while working. Wash hands at interruptions
Hygiene measures:	and work end.

9) physical and chemical qualities

Form:	Liquid
Color:	slightly yellow, clear.
Smell:	Odorless.
pH value:	5.5 (25 C)
Boiling-point/boiling area:	≥ 100 C
Melting point/glaze area:	≤ 0 C
Flaming point:	Not applicable.
Imflammatory/	Not inflammable.
Catching light temperature:	
Self flammability:	Not self-flammable
Fire promoting	Not combustible.
qualities:	
Danger of explosion:	No danger of explosion.
Vapor pression:	Remark: Corresponds to the vapor pression of water.
Density:	1.090 g/cm ³ (20 C)
Pouring density:	Not applicable.
Solubility into water:	Mixable.
in other solvents:	No relevant data.
Distribution coefficient	No relevant data.
n-Oktanol/water:	
Dynamic viscosity:	no relevant data.
Solving average salary:	21% water, 26% organic solvents (diethylenglykol)
Solid salary:	16%
other details:	There are not further data.

10) stability and reactivity

Stability:	No decomposition by coorrect use.
Conditions	Contact with strong alkalies
to be avoided:	
Avoiding	Reaction with strong alkalies
Substances:	
Dangerous	None confessed.
Educts:	
Further details:	No dangerous reactions at prescribed storage and handling.

11) details on toxicology

Toxicological tests:	
Acute Toxicity:	Details refer to the main component hydroquinone LD 50, oral rat 320 mg/kg
Specific symptoms in this	No relevant data.
Animal experiment:	



Developer Easy Lith Part A

Irritation-/ etching effect:	The details refer to the technical active agents (Hydroquinone, //10-15 % ig//)
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.
Cancer producing, ancestral estate changing as well as propagation endangering:	The preparation contains hydroquinone, a substance classified with category 3 producing cancer and changing ancestral estate (Category 3: Substances, giving concern because of possible carcinogenic and ancestral estate changing effect on the man).
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) details on ecology

General notes:	There are no data. 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) details on transport

Transport/further details:	No dangerous goods according to transport regulations (ADR/RID IMDG code, ICAO-TI/IATA-DGR)
-----------------------------------	---

15) regulations


Identification by EC directives:	The product is classified and labeled according to EC guidelines (GefStoffVO)
---	--

EC safetydata sheet

According to 91/155/EWG



Developer Easy Lith Part A

Classification letter:	Xn	danger symbol:	
Danger identification:	Bad for health		
R sentences:	40, 41, 43		
S sentences:	26, 36/37/39		
Remarks:	This classification was carried out according to the calculation method for preparations guideline (88/379/EEC).		
Special identification- regulations for definite Preparations:	is allotted		
National regulations:			
Occupation - restrictions:	Occupation restrictions for being and staunching mothers take into account (§ 5 MuSchuRiV).		
Disruptive incident prescription :	the Disruptive incident isn't subject.		
Prescription about combustible liquids:	It is not subject to this prescription.		
Technical instructions air:	This TA isn't a subject.		
Water endangering class (WGK):	2 (water endangering) (Classification in accordance with VwVwS, appendix 4)		
Other regulations, restrictions and Ban prescriptions:	is allotted		

16). other details

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.

Developer Easy Lith Part B

EC SAFETY DATA SHEET ACCORDING TO 91/155/EWG

1). substance-/ preparation and company name

Chemical name/ Easy Lith part B
Trade name:
Application/use: Photographic developer
Company name: Wolfgang Moersch Photochemie, Am Heideberg 48
D 50354 Hürth
Telephone: ++49 22 33 40 18 85

2). composition/details on components

This product is a preparation according to the chemical law.

Description:

Aqueous solution containing inorganic and organic substances

Composition/information about the components:

Name	Weight %	CAS no.	One EC number no.	EC index no.	Danger symbol; Danger notes
Potassium carbonate	30-40	584-08-7	209-529-3		Xn; R: 22-36/37/38

Other information: Principal ingredient: Water

3). possible risks

Name of the dangers: Irritating: Irritates the eyes and the skin.
Special danger notes No dangers to be mentioned particularly. Please, take the information
Man and environment: of this safety data sheet into account.

4). FIRST AID PRECAUTIONS

General notes: change contaminated clothing.
Consult a doctor.

After breathing in: No of special measures required.
At continuing troubles: obtain medical advice.

After skin contact: Wash skin immediately at touch with water and soap.
Wash clothing in front of reuse.

After eye contact: At eye contact, open eyelids then immediately wash with sufficient
water.
Consult a doctor.
Consult eye specialist at eye irritation.

After swallowing: Rinse out mouth and drink a lot of water.
Don't start any vomiting. Consult a doctor.

Notes for the doctor:
Symptoms: No symptoms confessed till now.

5). PRECAUTIONS at fire fighting

Suitable extinguishing agents: Coordinate extinguishing measures on surroundings fire.
Security reasons due to None confessed.

Developer Easy Lith Part B

unsuitable extinguishing agents:
Special endangerings due to the substance or the product itself its waste products of combustion or arising gasses: Released at fire: Carbon monoxide, carbon dioxide
Sulfur dioxide.
Special protection equipment the fire fighting: None of special measures required.
Additional notes: Product doesn't burn.

6). PRECAUTIONS at unintentional release

Person drawee Use personal protective clothing.
Precautions:
Environment protective measures: Don't let it get into the sewage system/surface water/ground water
Proceedings on cleaning and binding: Use liquid binding compounds like sawdust, universal binding agent
Additional notes: The taken material has to be treated according to section waste management

7). handling and storage

Indications for safe contact: Use only in well ventilated areas.
Points on fire-and Explosion protection: The product is not combustible.
Requirements on storerooms and container: None of special requests necessary. Container, thick, keep locked.
Together storage notes: None of special measures required.
More details to Storage conditions: Recommended storage temperature: 5 to 25 C
Store class: LGK 12 (VCI strategy)

8). outline demarcation and personal protection equipment

Additional indications for arrangement of technical plants: See section 7; no measures going beyond this required.
Components to be supervised in connection of the working place and limiting values
Personal protection equipment:
Breathing protection: Sufficient ventilation.
Hand protection: Gloves. Required qualities: Liquid proof, thick.
Eye protection: Safety goggles (basket glasses.)
Object protection: Personal protective clothing.
Protection-and Hygiene measures: Do not eat, drink or smoke at work.
Preventive skin protection. Wash hands before breaks and at work end. Use fatty skin cremes after cleaning.

Developer Easy Lith Part B

9). physical and chemical qualities

Form:	Liquid
Color:	Yellow, clear.
Smell:	Odorless.
pH value:	12.3 (25 C)
Boiling-point/boiling area:	≥ 100 C
Melting point/glaze area:	≤ 0 C
Flaming point:	Not applicable.
Imflamatory/ Catching light temperature:	Not inflammable.
Self flammability:	Not self flammable.
Fire promoting Qualities:	Not combustible.
Danger of explosion:	Not explosion endangered.
Vapor pression:	Remark: Corresponds to the vapor pression of water.
Density:	1.500 g/cm ³ (20 C)
Pouring density:	Not applicable.
Solubility in water:	Mixable.
in other solvents:	There are no data.
Distribution coefficient n-Oktanol/water:	There are no data.
Dynamic viscosity:	There are no data.
Solving average salary:	41% water
Solid salary:	59%
other details:	There are not further data.

10). stability and reactivity

Stability:	No decomposition by correct use.
Conditions to be avoided	Contact with strong acids.
Substances to be avoided:	Reaction with strong acids.
Dangerous Educts:	None confessed.
Further details:	No dangerous reactions at prescribed storage and handling.

11). details on toxicology

Toxikological exams:	
Acute Toxicity:	Details refer to the main components caliumcarbonate LD 50 oral rat 1870 mg/kg
Specific symptoms in this Animal experiment:	There are no data.
Irritation-/ etching effect:	
Skin:	Slight Irritation effect.
Eyes:	Irritating.
Sensitization:	There are no data.
Effect after repeated or longer continuous expose:	None confessed.

Developer Easy Lith Part B

Cancer producing, ancestral estate changing as well as propagation endangering:

None confessed.

Other details:

No further data.

Experiences from the practice:

There are no data.

General remarks:

There are no toxicological data. This classification is prepared according to the calculation proceedings of the preparation

guideline

(88/379/EEC).

12). details on ecology

General notes:

There are no data.

The product was not checked.

Remarks: Does ,by correct use ,not get into the sewage system.

13). indications for waste management

Product:

The corresponding legal local-and waste regulations must be observed. May not be together disposed with domestic garbage. Do not let it reach 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 gates on water base

Packing:

Not contaminated packages can be recycled

Empty completely, wash contaminated packages well

(Cleaning agent: water), can be recycled afterwards.

14). details on transport

Transport/further details:

No dangerous goods according to transport regulations (ADR/RID IMDG code, ICAO-TI/IATA-DGR)

15). Regulations

Identification

The product is/classified and labeled according to EC guidelines(GefStoffVO)

by EC directives:

Classification letter:

Xi

danger symbol:



Danger name:

irritating

R sentences:

36/38

S sentences:

26

Remarks: the classification is carried out according to the calculation method for preparations guideline (88/379/EEC).

Developer Easy Lith Part B

Special identification-

regulations for definite

Preparations: is allotted

National regulations:

Occupation - No restrictions.

restrictions:

Disruptive incident prescription (StörfallIV): the (Disruptive incident) isn't subject.

Prescription about combustible Is no subject for this prescription.

Liquids:

Technical instructions air: This (TA) isn't subject.

Water endangering class: 1 (weakly water endangering)
(WGK) (Classification in accordance with VwVwS, appendix 4)

Other regulations, restrictions and

Ban prescriptions: is dropped

16). other details

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.

ISSUED BY:

Wolfgang Moersch – Moersch-Photochemie
++49 2233 943137 info@moersch-photochemie.com

REVISION DATE:

2009-07-07

PRINTING DATE

2009-07-07

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

EC safetydata sheet

According to 91/155/EWG

Developer SE5 Lith Part D

1). substance-/ preparation and company name

Chemical name/	SE5 Lith part D Lith developer
Trade name:	
Application/use:	Photographic developer
Company name:	Wolfgang Moersch Photochemie, Am Heideberg 48 D 50354 Hürth
Telephone:	++49 22 33 943137

2). composition/details on components

This product is a preparation according to the chemical law.

Description: Aqueous solution containing mainly inorganic substances

Composition/information about the components:

Name	Weight %
Danger symbol: -	
Potassium bromide	30 - 40
Nitroindazole	0,1 - 0,5

Danger notes

Other information: Principal ingredient: water, potassium bromide

3). Possible risks

Name of dangers: No identification required. Please, take the information of this safety data sheet this one into account.

Special danger notes on Man and environment:

No dangers to be mentioned particularly.

4). first aid PRECAUTIONS

General notes:	change wet, contaminated clothing.
After breathing in:	None of special measures required.
After skin contact:	Wash at touch the skin with water and soap. Wash clothing before reuse.
After eye contact:	At eye contact open eyelids wash with water sufficiently then immediately consult a doctor. Consult an eye specialist at eye irritation.
After swallowing:	Rinse out mouth with water. Consult doctor.

Notes for the doctor:

Symptoms: No symptoms confessed till now.

5). PRECAUTIONS on fire fighting

Suitable extinguishing agents: Coordinate extinguishing measures on surroundings fire.

From security reasons None confessed.

unsuitable extinguishing agents:

Special endangerings of the substance or the product itself Possible releases by fire: Bromine vapors

its waste products of combustion or arising gasses:

Special protection equipment Compressed air breathing apparatuses allowed if the material burns

the fire fighting: use.

Additional notes: None.

6). PRECAUTIONS at unintentional release

Person drawee Use personal protective clothing.

Precautions:

Environment protective measures: Do not let it get into the sewage system/surface water/ground water

Proceedings on cleaning and binding: Use liquid binding compounds like sawdust, universal binding agent

Additional notes: The taken material according to section waste management treat.

7). handling and storage

Indications for safe contact: -

Points on fire-and The product is not combustible.

Explosion protection:

Requirements on storerooms and container: None of special requests necessary. Container, thick, keep locked.

Together storage notes: None of special measures required.

More details on Recommended storage temperature: 5 to 25 C

Storage conditions:

Store class: LGK 12 (VCI strategy)

8). outline demarcation and personal protection equipment

Additional indications for the See section 7; no measures going beyond this

Lay-out of technical plants: required.

Components to be supervised in connection with

the working place and

limiting values: No-one

Personal protection equipment:

Breathing protection: Sufficient ventilation, no additional protection necessary.
Hand protection: Gloves. Required qualities: Liquid thick.

Eye protection: Safety goggles (basket glasses).
Object protection: personal protective clothing
Protection-and Do not eat, drink or sneeze at work.
Hygiene measures: Preventive skin protection. Wash hands before the breaks
and
at work end
Use fatty skin cremes after use

9). physical and chemical qualities

Form: Liquid
Color: Yellow, clear.
Smell: Not characteristic.
pH value: 10.6 (22 C)

Boiling-point/boiling area: ≥ 100 C
Melting point/glaze area: ≤ 0 C
Flaming point: Not applicable
Imflammatory/ Not inflammable.
Catching light temperature:
Self-flammable: Not self flammable.
Fire promoting Not combustible.
Qualities:
Danger of explosion: Not explosion dangerous.
Vapor pression: Remark: Corresponds to the vapor pression of water.
Density: 1.274 g/cm³ (20 C)
Pouring density: Not applicable.
Solubility into waters: Mixable.
in other solvents: There are no data.
Distribution coefficient There are no data.
n-Oktanoll/water:
Dynamic viscosity: There are no data.
Solving average salary: 69% water
Solid salary: 31%
other details: There are no further data.

10). stability and reactivity

Stability: No decomposition at correct use.
Avoiding Contact with acids.
Conditions:
Avoiding Reaction with acids (formation) of bromine hydrogene.
Substances:

Dangerous Only at fire (temperature 750 C) dangerous
Educts: Bromine vapors can arise (see section 5).
Further details: No dangerous reactions at prescribed storage and Handling.

11). details on the toxicology

Toxicological exams:

Acute Toxicity: None confessed.

:

Irritation-/ etching effect:

Skin: Slight Irritation effect.

Eyes: Irritation effect.

Sensitization: There are no data.

Effects after repeated or longer, continuous expose:

None confessed.

Cancer producing, ancestral estate changing as well as propagation endangering qualities:

None confessed.

Other details: No further data.

Experiences from the practice: There are no data.

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

12). details on ecology

General notes: There are no data.
The product was not tested.
Remarks: Does not reach ,at correct use,
into the sewage.

13). indications for waste management

Product: The corresponding legal local-and waste regulations must be observed. May not be together disposed with domestic garbage. Do not let it reach 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 packages can be recycled
Empty completely, wash contaminated packages well
(Cleaning agent: water), can be recycled afterwards
being a reuse supplied.

14). details on transport

Transport/further details: No dangerous goods according to the transport regulations
(ADR/RID IMDG code, ICAO-TI/IATA-DGR)

15). Regulations Identification No identification required.

to EC directives: Is allotted.

Classification letter: Is allotted.

Danger symbol: Is allotted.

Danger name: Is allotted.

R sentences: Is allotted.

S sentences: Is allotted.

Remarks: the classification was carried out according to the calculation method preparation guideline (88/379/EEC)

Special identification-regulations for definite Preparations: Is allotted.

National regulations:

Occupation - restrictions: No-one

Disruptive incident prescription: the disruptive incident isn't subject.

Prescription about combustible Is not subject to this prescription.

Liquids:

Technical instructions air: The (TA) isn't subject.

Water endangering class: 1 (water endangering weakly)

(WGK) (Classification in accordance with VwVwS, appendix 4)

Other regulations, restrictions and Ban prescriptions: is allotted

16). other details

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.

ISSUED BY: Wolfgang Moersch – Moersch-Photochemie
++49 2233 943137 info@moersch-photochemie.com

REVISION DATE: 28 Jun 2007
PRINTING DATE 02 May 1995

Developer SIENA Additive Carbonat

1) substance-/ preparation and company name

Chemical name/ Trade name: Polychrome Additiv Carbonat

Application/use: Photographic developer

Company name: Wolfgang Moersch Photochemie, Am Heideberg 48
D 50354 Hürth, Germany

Telephone: ++49 22 33 943137

2) Hazards identification

HARMFUL IF SWALLOWED
MAY CAUSE EYE IRRITATION

3) composition/details on components

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	10-20%	584-08-7	209-529-3	R-22, 36

Other information: further principal ingredient: Water

4) first aid precautions

General notes: change contaminated, wet clothing.

After skin contact: at skin contact wash immediately with water and soap.
Wash clothing before reuse.

After eye contact: At eye contact open eyelids wash with water, then immediately consult an eye specialist.
Consult eye specialist at eye irritation.

After swallowing: Rinse out mouth with water and drink a lot of water afterwards

5) PRECAUTIONS for fire fighting

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

unsuitable extinguishing agents: None confessed

Special endangerings of

Special protection equipment None of special equipment required.

for fire fighting:

Additional notes: Product does not burn.

6) PRECAUTIONS at unintentional release

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

Developer SIENA Additive Carbonat

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: 5 to 25 C
Store class:	LGK 12 (VCI strategy)

8) outline demarcation and personal protection 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: Not required

Eye protection: Tightly sealed safety glasses.

9) physical and chemical qualities

Form:	Liquid
Color:	Colourless, clear.
Smell:	Odourless
pH value:	11.3 (20 C)
Boiling-point/boiling area:	≥ 100 C
Melting point/glaze area:	≤ 0 C
Flaming point:	Not applicable.
Imflammatoriy/	Not inflammable.
Catching light temperature:	
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:	1.09 g/ml (20 C)
Pouring density:	Not applicable.

Developer SIENA Additive Carbonat

Solubility into water:	Mixable.
in other solvents:	No relevant data.
Distribution coefficient	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) details on toxicology

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

Skin:

-

Eyes:

irritating

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) details on ecology

General notes:

There are no data.

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:

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

14) details on transport

Transport/further details:

No dangerous goods according to transport regulations
(ADR/RID IMDG code, ICAO-TI/IATA-DGR)

Developer SIENA Additive Carbonat

15) regulations

Identification by EC directives:	The product is classified and labeled according to EC guidelines (GefStoffVO)	
Classification letter:	none	Danger symbol: none
Danger identification:	none	
R sentences:	R22, R36	
S sentences:	S-2 Keep out of reach of children.	
Remarks:	This classification was carried out according to the calculation method for preparations guideline (88/379/EEC).	
Technical instructions air:	This TA isn't a subject.	
Water endangering class (WGK):	1 (water endangering) (Classification in accordance with VwVwS, appendix 4)	

16). other details

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.

ISSUED BY: **Wolfgang Moersch – Moersch-Photochemie**
++49 2233 943137 info@moersch-photochemie.com

REVISION DATE: **08 SEPT 2008**
PRINTING DATE **11 NOV 1998**

Developer SIENA Additive Chloride

1) substance-/ preparation and company name

Chemical name/ Trade name: Polychrome Additiv Ammonium Chlorid

Application/use: Photographic developer

Company name: Wolfgang Moersch Photochemie, Am Heideberg 48
D 50354 Hürth, Germany

Telephone: ++49 22 33 943137

2) Hazards identification

HARMFUL IF SWALLOWED
MAY CAUSE EYE IRRITATION

3) composition/details on components

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

Description: Aqueous solution containing inorganic and organic substances

Name	Content	CAS	EINECS	CLASSIFICATION
Ammonium chloride	20-30%	12125-02-9	235-186-4	R22, R36

Other information: further principal ingredient: Water

4) first aid precautions

General notes: change contaminated, wet clothing.

After skin contact: at skin contact wash immediately with water and soap.
Wash clothing before reuse.

After eye contact: At eye contact open eyelids wash with water, then immediately consult an eye specialist.
Consult eye specialist at eye irritation.

After swallowing: Rinse out mouth with water and drink a lot of water afterwards

5) PRECAUTIONS for fire fighting

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

unsuitable extinguishing agents: None confessed

Special endangerings of

Special protection equipment None of special equipment required.

for fire fighting:

Additional notes: Product does not burn.

6) PRECAUTIONS at unintentional release

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

Developer SIENA Additive Chloride

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: 5 to 25 C
Store class:	LGK 12 (VCI strategy)

8) outline demarcation and personal protection 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: Not required

Eye protection: Tightly sealed safety glasses.

9) physical and chemical qualities

Form:	Liquid
Color:	Colourless, clear.
Smell:	ammonia
pH value:	7.5 (20 C)
Boiling-point/boiling area:	≥ 100 C
Melting point/glaze area:	≤ 0 C
Flaming point:	Not applicable.
Imflammatory/	Not inflammable.
Catching light temperature:	
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:	1.08 g/ml (20 C)
Pouring density:	Not applicable.

Developer SIENA Additive Chloride

Solubility into water:	Mixable.
in other solvents:	No relevant data.
Distribution coefficient	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) details on toxicology

Irritation-/ etching effect:	The details refer to the technical active agents
Skin:	slightly irritating
Eyes:	irritating
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) details on ecology

General notes:	There are no data. 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:	Empty packing completely, wash well (Cleaning agent: water), can be recycled afterwards

14) details on transport

Transport/further details:	No dangerous goods according to transport regulations (ADR/RID IMDG code, ICAO-TI/IATA-DGR)
-----------------------------------	--

15) regulations

Developer SIENA Additive Chloride

Identification by EC directives:	The product is classified and labeled according to EC guidelines (GefStoffVO)	
Classification letter:	none	Danger symbol: none
Danger identification:	harmful	
R sentences:	R22, R36	
S sentences:	S-2 Keep out of reach of children.	
Remarks:	This classification was carried out according to the calculation method for preparations guideline (88/379/EEC).	
Technical instructions air:	This TA isn't a subject.	
Water endangering class (WGK):	1 (water endangering) (Classification in accordance with VwVwS, appendix 4)	

16). other details

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.

ISSUED BY: **Wolfgang Moersch – Moersch-Photochemie**
++49 2233 943137 info@moersch-photochemie.com

REVISION DATE: **08 SEPT 2008**
PRINTING DATE **11 NOV 1998**

Developer SIENA

1) substance-/ preparation and company name

Chemical name/ Trade name: SIENA

Application/use: Photographic developer

Company name: Wolfgang Moersch Photochemie, Am Heideberg 48
D 50354 Hürth, Germany

Telephone: ++49 22 33 943137

2) Hazards identification

MAY BE HARMFUL IF ABSORBED THROUGH SKIN, OR SWALLOWED
MAY CAUSE EYE IRRITATION
MAY CAUSE ALLERGIC SKIN REACTION

3) composition/details on components

This product is a preparation according to the law for chemicals.
Description: Aqueous solution containing inorganic and organic substances

Name	Content	CAS	EINECS	CLASSIFICATION
N-4-HYDROXYPHENYLGLYCINE	10-20%	122-87-2	204-580-8	not classified
DIETHYLENTRIAMINE PENTAACETIC ACID NA5	>0,5%	67-43-6	200-652-8	Xi R-36
SODIUM SULPHITE	5-10%	7757-83-7	231-821-4	not classified

Other information: further principal ingredient: Water

4) first aid precautions

General notes: change contaminated, wet clothing.

After skin contact: at skin contact wash immediately with water and soap.
Wash clothing before reuse.

After eye contact: At eye contact open eyelids wash with water, then immediately consult an eye specialist.
Consult eye specialist at eye irritation.

After swallowing: Rinse out mouth with water and drink a lot of water afterwards

5) PRECAUTIONS for fire fighting

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

unsuitable extinguishing agents:

Special endangerings of None confessed

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

Developer SIENA

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

6) PRECAUTIONS at unintentional release

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: 5 to 25 C
Store class: LGK 12 (VCI strategy)

8) outline demarcation and personal protection 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: Not required
Eye protection: Tightly sealed safety glasses.

9) physical and chemical qualities

Form: Liquid
Color: Colourless, clear.
Smell: Odourless.
pH value: 7.8 (20 C)
Boiling-point/boiling area: ≥ 100 C
Melting point/glaze area: ≤ 0 C
Flaming point: Not applicable.
Imflammatory/ Not inflammable.
Catching light temperature:
Self flammability: Not self-flammable

Developer SIENA

Fire promoting qualities:	Not combustible.
Danger of explosion:	No danger of explosion.
Vapor pression:	Remark: Corresponds to the vapor pression of water.
Density:	1.14 g/ml (20 C)
Pouring density:	Not applicable.
Solubility into water:	Mixable.
in other solvents:	No relevant data.
Distribution coefficient	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) details on toxicology

Irritation-/ etching effect:	The details refer to the technical active agents
Skin:	slightly irritating
Eyes:	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) details on ecology

General notes:	There are no data. 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

Developer SIENA

14) details on transport

Transport/further details: No dangerous goods according to transport regulations
(ADR/RID IMDG code, ICAO-TI/IATA-DGR)

15) regulations

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

Classification letter: none **Danger symbol:** none

Danger identification: harmful

R sentences: -

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 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: This TA isn't a subject.
Water endangering class (WGK): 1 (water endangering)
(Classification in accordance with VwVwS, appendix 4)

16). other details

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.

ISSUED BY: Wolfgang Moersch – Moersch-Photochemie
++49 2233 943137 info@moersch-photochemie.com

REVISION DATE: 03 FEB 2002
PRINTING DATE 11 NOV 1998

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

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical name/ Trade name: MT1 SELENIUM

Application/use: Photographic toner

Company name: Moersch Photochemie, Am Heideberg 48
D 50354 Hürth, Germany

Telephone: ++49 22 33 943137

2 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 Selenite	1-5%	10102-18-8	233-267-9	T, N;R-23/25-33-50/53
Ammonium Thiosulphate	10-30%	7783-18-8	231-982-0	
Ammonium Sulphite	5-10%	10196-04-0	233-484-9	Xi; R 31-36/38

Other information: further principal ingredient: Water

3 HAZARDS IDENTIFICATION

INHALATION

May cause irritation to the respiratory system

INGESTION

Toxic if swallowed

SKIN CONTACT

Harmful in contact with skin. May cause skin irritation. May cause sensitization by skin contact.

EYE CONTACT

Ammonia may cause severe irritation to eyes.

4 FIRST-AID MEASURES

After breathing in: Move the exposed person to fresh air at once. Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

After skin contact: Remove affected person from source of contamination. Wash skin thoroughly with soap and water. Contact physician if irritation continues..

After eye contact: At eye contact open eyelids wash with water, then immediately consult an eye specialist.

After swallowing:

Never make an unconscious person vomit or drink fluids! Remove victim immediately from source of exposure. Rinse mouth thoroughly. Drink a few glasses of water or milk. Provide rest, warmth and fresh air. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention.

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

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

The product is non-combustible. Use extinguishing media appropriate for surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES

Avoid breathing fire vapors.

UNUSUAL FIRE & EXPLOSION HAZARDS

No unusual fire or explosion hazards noted.

SPECIFIC HAZARDS

The product is non-combustible. If heated, harmful vapors may be formed.

PROTECTIVE MEASURES IN FIRE

Use protective equipment appropriate for surrounding materials. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

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

HANDLING

Provide good ventilation. Avoid spilling, skin and eye contact. Do not eat, drink or smoke when using the product. Read and follow manufacturer's recommendations.

STORAGE

Store in closed original container in a dry place. Store above freezing. Store under well-ventilated conditions at a temperature below 25°C.

STORAGE CLASS

Chemical storage. LGK 12 (VCI strategy)

8 OUTLINE DEMARCATION AND PERSONAL PROTECTION EQUIPMENT

PROTECTIVE EQUIPMENT

Breathing protection:

Sufficient ventilation, no additional protection necessary.

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	Clear liquid
COLOR	Colorless
ODOR	Ammonia
SOLUBILITY	100% Soluble in water
BOILING POINT (°C)	>100 760 mm Hg
RELATIVE DENSITY	1.32 20
pH-VALUE, CONC. SOLUTION	9.1

10 STABILITY AND REACTIVITY

STABILITY:	No decomposition by correct use.
CONDITIONS TO AVOID:	Avoid contact with acids and alkalies. Avoid mixing with: Strong alkalies. Generates toxic gas in contact with acid.

HAZARDOUS POLYMERISATION MATERIALS TO AVOID	Will not polymerize. Strong acids. Strong alkalies. Avoid contact with other photographic solutions and cleaning compounds.
--	--

HAZARDOUS DECOMPOSITION PRODUCTS

Fire or high temperatures may form toxic and corrosive vapors. Ammonia Sulphurous gases (SO_x).

11 TOXICOLOGICAL INFORMATION

This chemical formulation has not been tested for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

12 ECOLOGICAL INFORMATION

ECOTOXICITY
Not regarded as dangerous for the environment.

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

TRANSPORT NOTES This product is not classified as dangerous for transport by road, rail sea or air, (ADR/RID, IMDG, IATA). The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

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

**Danger identification:
Relevant R-phrases** **harmful**
R-20/22 Harmful by inhalation and if swallowed. R-36/37/38 Irritating to eyes, respiratory system and skin.
25 Toxic bif swallowed.
33 Danger of cumulative effects.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.
61 Avoid release to the environment. Refer to special instructions/safety data sheets.

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
++49 2233 943137 info@moersch-photochemie.com

REVISION DATE:

12 Jan 2002

PRINTING DATE

12 Jan 2002

R-PHRASES (FULL TEXT)

R-20/22 Harmful by inhalation and if swallowed. R-36/37/38 Irritating to eyes, respiratory system and skin.25 Toxic bif swallowed.

33 Danger of cumulative effects.

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATIONChemical name/ Trade name: **BLEICHER - BLEACH**

Application/use: photographic bleach
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

Occupational exposure controls: Not established

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 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

No dangerous good

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 bleach

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
++49 2233 943137 info@moersch-photochemie.com

REVISION DATE:

12 Jun 1998

PRINTING DATE

12 Jun 1998

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical name/ Trade name: **MT4 SIENA**

Application/use: Photographic toner
Company name: Moersch Photochemie, Am Heideberg 48
D 50354 Hürth, Germany
Phone: ++49 22 33 943137
Helth Emergency Phone: ++49 22 33 943137

2 HAZARDS IDENTIFICATION

CONTAINS: Aqueous Alkaline Photochemical Solution containing Potassium Polysulfide

DANGER!

**CONTACT WITH ACID LIBERATES FLAMMABLE AND POISONOUS GAS
CAUSES SKIN AND EYE BURNS**

**DUST, MIST OR VAPOUR IRRITATING TO THE EYES AND RESPIRATORY TRACT
HARMFUL IF INHALED, ABSORBED THROUGH SKIN, OR SWALLOWED**

NFPA Hazard Ratings: Health - 3, Flammability - 1, Instability - 0

NOTE: NFPA 704 (2001) hazard indexes involves data review and interpretation that may vary among companies. It is intended only for rapid, general identification of the magnitude of the potential hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

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	5-10%	584-08-7	209-529-3	Xn R-22, 36
SODIUM SELENITE	>1%	10102-18-8	233-267-9	T, N;R-23/25-33-50/53
POTASSIUM (POLY)SULFIDE	10-15%	37199-66-9	253-390-1	T, N;R-23/25-33-50/53

Other information: further principal ingredient: Water

4 FIRST-AID MEASURES

Inhalation: If inhaled, move to fresh air. Get medical attention.

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

Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing

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

before re-use. Destroy or thoroughly clean contaminated shoes.

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

Notes to physician:

Treatment: Strong alkalis bind tissue protein. Following initial flushing of the eye with water, continued irrigation of the eye with saline is recommended. Treatment should be continued until pH of tears reaches neutral

5 FIRE-FIGHTING MEASURES

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective suit. Fire or excessive heat may produce hazardous decomposition products.

Hazardous Combustion Products: Carbon oxides, sulphur oxides, (see also Hazardous Decomposition Products section).

Unusual Fire and Explosion Hazards: None.

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

STORAGE TEMPERATURE(MIN/MAX): Store between 40 F (4.4 C) and 80 F (26 C).

Preferred storage is at 68 F (20 C).

SHELF LIFE.....: N.A.

SPECIAL SENSITIVITY.....: Keep from freezing.

HANDLING/STORAGE PRECAUTIONS: Avoid eye and skin contact, and store in well-ventilated area. Keep container tightly closed. Do not store with incompatible materials. Do not store or consume food, drink or tobacco in area where they may become contaminated with this material. For incompatibles see section 10.

OTHER NOTES.....: Keep out of the reach of children.

8 OUTLINE DEMARCATION AND PERSONAL PROTECTION EQUIPMENT

PROTECTIVE CLOTHING REQUIREMENTS....: **Splash protection required for eyes, e.g., eye glasses with side shields or goggles.** For skin protection use chemical resistant gloves and aprons, e.g. made of neoprene, rubber or vinyl.

VENTILATION REQUIREMENTS.....: Use sufficient general room ventilation and/or local exhaust to maintain airborne levels of vapors below applicable exposure limits (see Section 2).

RESPIRATOR REQUIREMENTS.....: Under normal conditions of use, respirator protection is not required. If respirators are used, institute a program in accordance with OSHA standard 29CFR1010.134.

ADDITIONAL PROTECTIVE MEASURES.....: **Emergency showers and eye wash stations should be**

made available. Educate and train employees in the safe use and handling of this product.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	liquid
COLOR	red
ODOR	Smell of hydrogen sulfide (foul smelling)
SOLUBILITY	100% soluble in water
BOILING POINT (°C)	greater than 100°C - 212°F
MELTING POINT	less than 0°C - 32°F
FLAMING POINT	Not applicable.
INFLAMMATORY/	Not inflammable.
Catching light temperature:	
SELF FLAMMABILITY	Not self-flammable
FIRE PROMOTING QUALITIES	Not combustible.
DANGER OF EXPLOSION	No danger of explosion.
RELATIVE DENSITY	1.29
pH-VALUE, CONC. SOLUTION	12.8

10 STABILITY AND REACTIVITY

STABILITY.....: This is a stable material.
HAZARDOUS POLYMERIZATION...: Will not occur.
INCOMPATIBILITIES.....: Contact with acids liberates toxic gas (hydrogen sulfide). Corrodes metals.
INSTABILITY CONDITIONS.....: None known.
DECOMPOSITION PRODUCTS.....: In case of fire, hydrogen sulfide, sulfur dioxide, and other potentially toxic fumes.

11 TOXICOLOGICAL INFORMATION

Effects of Exposure

Inhalation: Harmful if inhaled. If hydrogen sulphide gas is liberated due to contact with acid, it may cause headache, nausea, dizziness, confusion, weakness, unconsciousness, convulsions, and death.

Eyes: Causes eye burns.

Skin: Harmful if absorbed through skin. Causes skin irritation.

Ingestion: Harmful if swallowed. If free gastric acidity is high, hydrogen sulfide is liberated in the stomach and may cause systemic toxic effects such as vomiting, respiratory depression, tremors, convulsions and death.

Acute Toxicity Data:

Oral LD50 (rat): 1,600 mg/kg

Skin irritation: severe (The product may be absorbed through the skin.)

Skin irritation: Corrosive (4-hour DOT Skin Corrosivity Test, Destruction of skin tissue as a result of more than 3 minutes exposure.)

Eye irritation: severe

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

TECHNICAL SHIPPING NAME.....: **Potassium polysulfides (37199-66-9)**

PRODUCT LABEL.....: MT4 SIENA

DOT (DOMESTIC SURFACE)

PROPER SHIPPING NAME.....: Corrosive liquid, basic, inorganic, n.o.s.

HAZARD CLASS OR DIVISION: 8

UN/NA NUMBER.....: UN3262

PACKING GROUP: III

DOT PRODUCT RQ lbs (kgs).....: None

HAZARD LABEL(s).....: Corrosive

HAZARD PLACARD(s).....: Corrosive

Limited Quantity Exception may apply to this product, for "inner packagings not over 1.0 L (0.3 gal) for liquids and 1.0 kg (2.2 lb) for solids". 173.154

(b) (1). Each package must conform to the packaging requirements of Subpart B of Part 173 and may not exceed 30 kg (66 lb) gross weight. For further information consult the 49 CFR.

469P.003

Page 4 of 6

Approval Date: 05/13/2003

IMO / IMDG CODE (OCEAN)

PROPER SHIPPING NAME.....: Corrosive liquid, basic, inorganic, n.o.s.

HAZARD CLASS DIVISION NUMBER...: 8

UN NUMBER.....: UN3262

PACKAGING GROUP.....: III

HAZARD LABEL(s).....: Corrosive

HAZARD PLACARD(s).....: Corrosive

ICAO / IATA (AIR)

PROPER SHIPPING NAME.....: Corrosive liquid, basic, inorganic, n.o.s.

HAZARD CLASS DIVISION NUMBER...: 8

UN NUMBER.....: UN3262

SUBSIDIARY RISK.....: None

PACKING GROUP.....: III

HAZARD LABEL(s).....: Corrosive

RADIOACTIVE?.....: Non-Radioactive

PASSENGER AIR - MAX. QTY.: 5 L

PASSENGER PACKING INSTRUCTION..: 818

CARGO AIR - MAX. QTY.: 60 L

CARGO AIR PACKING INSTRUCTION..: 820

15 REGULATIONS

Identification by EC directives:

The product is classified and labeled according to EC guidelines

OSHA STATUS.....: This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

TSCA STATUS.....: On TSCA Inventory
CERCLA REPORTABLE QUANTITY...: None
SARA TITLE III:
SECTION 302 EXTREMELY
HAZARDOUS SUBSTANCES...: None
SECTION 311/312
HAZARD CATEGORIES.....: Immediate Health Hazard
SECTION 313
TOXIC CHEMICALS.....: None
RCRA STATUS.....: When discarded in its purchased form, this product meets the criteria of corrosivity, and should be managed as a hazardous waste (EPA Hazardous Waste Number D002). (40 CFR 261.20-24)
The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.
COMPONENT NAME
/CAS NUMBER CONCENTRATION STATE CODE

Water
7732-18-5 70-80 % PA3, NJ4
Potassium Polysulfide
37199-66-9 20-30 % PA3, NJ4

NJ4 = New Jersey Other - included in 5 predominant ingredients > 1%
PA3 = Pennsylvania Non-hazardous present at 3% or greater.

U.S. California Prop. 65: none

Carcinogenicity Classification (components present at 0.1% or more):

International Agency for Research on Cancer (IARC): none
American Conference of Governmental Industrial Hygienists (ACGIH): none
U.S. National Toxicology Program (NTP): none
U.S. Occupational Safety and Health Administration (OSHA): none

Chemical(s) subject to the reporting requirements of U.S. Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372: none

Relevant R-phrases 20/22 Harmful by inhalation and if swallowed.
31 Contact with acids liberates toxic gas.
33 Danger of cumulative effects.
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-36/37 Wear suitable protective clothing and gloves. S-46 If swallowed seek medical advice immediately and show this container label.
61 Avoid release to the environment. Refer to special instructions/safety data sheets.

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.

US/Canadian Label Statements:

CONTAINS: Potassium polysulfides (37199-66-9)

DANGER!

CONTACT WITH ACID LIBERATES FLAMMABLE AND POISONOUS GAS

CAUSES SKIN AND EYE BURNS

DUST, MIST OR VAPOUR IRRITATING TO THE EYES AND RESPIRATORY TRACT

HARMFUL IF INHALED, ABSORBED THROUGH SKIN, OR SWALLOWED

Do not breathe vapours or spray mist.

Do not get in eyes and avoid contact with skin and clothing.

Keep container tightly closed.

Use only with adequate ventilation.

Wash thoroughly after handling.

FIRST AID: If inhaled, move to fresh air. Get medical attention. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash contaminated clothing before re-use. Destroy or thoroughly clean contaminated shoes. If swallowed, DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Notes to physician: Strong alkalis bind tissue protein. Following initial flushing of the eye with water, continued irrigation of the eye with saline is recommended. Treatment should be continued until pH of tears reaches neutral.

ISSUED BY:

Wolfgang Moersch – Moersch-Photochemie

++49 2233 943137 info@moersch-photochemie.com

REVISION DATE:

11 Jul 2008

PRINTING DATE

02 May 2003