

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



TRICHROME STAINING KIT

Version 1.1

Revision Date 10-01-2012

Print Date 05-13-2013

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Commercial Product Name : TRICHROME STAINING KIT
Mat.-No./ Genisys-No. : 06521908001

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended restrictions on use : For professional users only.

1.3 Details of the supplier of the safety data sheet

Company : Ventana Medical Systems
1910 E. Innovation Park Drive
85755 Tucson AZ
E-mail address :
Telephone : 1-800-227-2155 or 520-877-2155
Telefax :
Responsible Department :
In case of emergencies: : CHEMTREC 1-800-424-9300 (U.S. or
Canada)
1-703-527-3887
(International)
:

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2	H225: Highly flammable liquid and vapour.
Acute toxicity, Category 4	H302: Harmful if swallowed.
Skin corrosion, Category 1A	H314: Causes severe skin burns and eye damage.
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Carcinogenicity, Category 2	H351: Suspected of causing cancer.
Specific target organ toxicity - single exposure, Category 2	H371: May cause damage to organs.

Classification (67/548/EEC, 1999/45/EC)

Highly flammable	R11: Highly flammable.
Corrosive	R35: Causes severe burns.
Harmful	R20/21/22, R68/20/21/22: Harmful by inhalation, in contact with skin and if swallowed., Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.
Sensitising	R43: May cause sensitization by skin contact.
Carcinogenic Category 3	R40: Limited evidence of a carcinogenic effect.
	R 1: Explosive when dry.

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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms

:



Signal word

: Danger

Hazard statements

: H225
H302
H314
H317
H351
H371

Highly flammable liquid and vapour.
Harmful if swallowed.
Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
Suspected of causing cancer.
May cause damage to organs.

Precautionary statements

: **Prevention:**

P201
P202

Obtain special instructions before use.
Do not handle until all safety precautions
have been read and understood.

P210

Keep away from heat/sparks/open
flames/hot surfaces. - No smoking.

P233

Keep container tightly closed.

P240

Ground/bond container and receiving
equipment.

P241

Use explosion-proof electrical/ ventilating/
lighting/ equipment.

P242

Use only non-sparking tools.

P243

Take precautionary measures against static
discharge.

P260

Do not breathe dust/ fume/ gas/ mist/
vapours/ spray.

P264

Wash skin thoroughly after handling.

P270

Do not eat, drink or smoke when using this
product.

P272

Contaminated work clothing should not be
allowed out of the workplace.

P280

Wear protective gloves/ protective clothing/
eye protection/ face protection.

Response:

P301 + P312

IF SWALLOWED: Call a POISON CENTER
or doctor/ physician if you feel unwell.

P301 + P330 + P331

IF SWALLOWED: rinse mouth. Do
NOT induce vomiting.

P303 + P361 + P353

IF ON SKIN (or hair): Remove/ Take
off immediately all contaminated clothing.
Rinse skin with water/ shower.

P304 + P340

IF INHALED: Remove victim to fresh air
and keep at rest in a position comfortable
for breathing.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with
water for several minutes. Remove contact

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lenses, if present and easy to do. Continue rinsing.
P309 + P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician.
P310 Immediately call a POISON CENTER or doctor/ physician.
P321 Specific treatment (see supplemental first aid instructions on this label).
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Additional Labelling:

EUH210 Safety data sheet available on request.
EUH001 Explosive when dry.

2.3 Other hazards

No information available.

3. Composition/information on ingredients

3.2 Mixtures

Red 2

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Classification (67/548/EEC, 1999/45/EC)

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
acetic acid	64-19-7 200-580-7	R10 C; R35	Flam. Liq. 3; H226 Skin Corr. 1A; H314	>= 1 - < 3

For the full text of the R-phrases mentioned in this Section, see Section 16.

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For the full text of the H-Statements mentioned in this Section, see Section 16.

Trichrome Blue

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Classification (67/548/EEC, 1999/45/EC)

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
acetic acid	64-19-7 200-580-7	R10 C; R35	Flam. Liq. 3; H226 Skin Corr. 1A; H314	>= 1 - < 3

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

Bouin's Solution

Classification (REGULATION (EC) No 1272/2008)

Skin corrosion, Category 1A

Skin sensitization, Category 1

Carcinogenicity, Category 2

H314: Causes severe skin burns and eye damage.

H317: May cause an allergic skin reaction.

H351: Suspected of causing cancer.

Classification (67/548/EEC, 1999/45/EC)

Corrosive

Carcinogenic Category 3

Sensitising

R35: Causes severe burns.

R40: Limited evidence of a carcinogenic effect.

R43: May cause sensitization by skin contact.

R 1: Explosive when dry.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
acetic acid	64-19-7 200-580-7	R10 C; R35	Flam. Liq. 3; H226 Skin Corr. 1A; H314	>= 5 - < 10
formaldehyde	50-00-0 200-001-8	Carc.Cat.3; R40 T; R23/24/25 C; R34 R43	Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311 Skin Corr. 1B; H314 Skin Sens. 1; H317	>= 3 - < 5

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			Carc. 2; H351	
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For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

Clarifier

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Classification (67/548/EEC, 1999/45/EC)

Not a hazardous substance or mixture according to EC-directives 67/548/EEC or 1999/45/EC.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
acetic acid	64-19-7 200-580-7	R10 C; R35	Flam. Liq. 3; H226 Skin Corr. 1A; H314	>= 1 - < 3

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

Hematoxylin A

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2

Acute toxicity, Category 4

Specific target organ toxicity - single
exposure, Category 2

H225: Highly flammable liquid and vapour.

H302: Harmful if swallowed.

H371: May cause damage to organs.

Classification (67/548/EEC, 1999/45/EC)

Highly flammable

Harmful

R11: Highly flammable.

R20/21/22, R68/20/21/22: Harmful by inhalation, in
contact with skin and if swallowed., Harmful:
possible risk of irreversible effects through
inhalation, in contact with skin and if swallowed.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
ethanol	64-17-5 200-578-6	F; R11	Flam. Liq. 2; H225	>= 50 - <= 100

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methanol	67-56-1 200-659-6	F; R11 T; R23/24/25- R39/23/24/25	Flam. Liq. 2; H225 Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311 STOT SE 1; H370	>= 3 - < 10
propan-2-ol	67-63-0 200-661-7	F; R11 Xi; R36 R67	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	< 10
haematoxylin	517-28-2 208-237-3	Xn; Xn; R22- R36/37/38	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335	< 10

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

*Hematoxylin B***Classification (REGULATION (EC) No 1272/2008)**

Skin corrosion, Category 1A

H314: Causes severe skin burns and eye damage.

Classification (67/548/EEC, 1999/45/EC)

Corrosive

R35: Causes severe burns.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Iron(III)-chloride hexahydrate	10025-77-1 231-729-4	Xn; Xn; R22 Xi; Xi; R38-R41	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318	< 5
acetic acid	64-19-7 200-580-7	R10 C; R35	Flam. Liq. 3; H226 Skin Corr. 1A; H314	>= 1 - < 5

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

*Mordant***Classification (REGULATION (EC) No 1272/2008)**

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Skin corrosion, Category 1A

H314: Causes severe skin burns and eye damage.

Classification (67/548/EEC, 1999/45/EC)

Corrosive

R35: Causes severe burns.

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Phosphormolybdänsäure	51429-74-4	C; C; R34	Skin Corr. 1B; H314	>= 1 - < 5

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : Move to fresh air.
If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.
Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

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If symptoms persist, call a physician.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self contained breathing apparatus for fire fighting if necessary.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Refer to protective measures listed in sections 7 and 8.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

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Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

Treat recovered material as described in the section "Disposal considerations".

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
To prevent leaks or spillages from spreading, provide a suitable liquid retention system.

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.
Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).
Use only explosion-proof equipment.
Keep away from open flames, hot surfaces and sources of ignition.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No smoking.
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with

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the technological safety standards.

Further information on
storage conditions
Other data

: See label, package insert or internal guidelines
: No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : Laboratory chemicals

8. Exposure controls/personal protection

Exposure Guidelines

Red 2

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Source
acetic acid	64-19-7	TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	15 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	10 ppm 25 mg/m3	USA. NIOSH Recommended Exposure Limits
		ST	15 ppm 37 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	10 ppm 25 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	10 ppm 25 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

Trichrome Blue

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Source
acetic acid	64-19-7	TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	15 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	10 ppm 25 mg/m3	USA. NIOSH Recommended Exposure

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				Limits
		ST	15 ppm 37 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	10 ppm 25 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	10 ppm 25 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

Bouin's Solution

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Source
acetic acid	64-19-7	TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	15 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	10 ppm 25 mg/m3	USA. NIOSH Recommended Exposure Limits
		ST	15 ppm 37 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	10 ppm 25 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	10 ppm 25 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
formaldehyde	50-00-0	C	0.3 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.016 ppm	USA. NIOSH Recommended Exposure Limits
		C	0.1 ppm	USA. NIOSH Recommended Exposure Limits
		TWA	0.016 ppm	USA. NIOSH Recommended Exposure Limits
		C	0.1 ppm	USA. NIOSH Recommended Exposure Limits

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Clarifier

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Source
acetic acid	64-19-7	TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	15 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	10 ppm 25 mg/m3	USA. NIOSH Recommended Exposure Limits
		ST	15 ppm 37 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	10 ppm 25 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	10 ppm 25 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

Hematoxylin A

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Source
ethanol	64-17-5	TWA	1,000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	1,000 ppm 1,900 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	1,000 ppm 1,900 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	1,000 ppm 1,900 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
methanol	67-56-1	TWA	200 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	200 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	250 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	250 ppm	USA. ACGIH Threshold

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				Limit Values (TLV)
		TWA	200 ppm 260 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	200 ppm 260 mg/m3	USA. NIOSH Recommended Exposure Limits
		ST	250 ppm 325 mg/m3	USA. NIOSH Recommended Exposure Limits
		ST	250 ppm 325 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	200 ppm 260 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	200 ppm 260 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	200 ppm 260 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	200 ppm 260 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		STEL	250 ppm 325 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		STEL	250 ppm 325 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
propan-2-ol	67-63-0	TWA	200 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	400 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	400 ppm 980 mg/m3	USA. NIOSH Recommended Exposure Limits
		ST	500 ppm 1,225 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	400 ppm 980 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	400 ppm 980 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air

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				Contaminants - 1910.1000
		STEL	500 ppm 1,225 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

Hematoxylin B

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Source
acetic acid	64-19-7	TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	15 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	10 ppm 25 mg/m3	USA. NIOSH Recommended Exposure Limits
		ST	15 ppm 37 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	10 ppm 25 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	10 ppm 25 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000

Mordant

Contains no substances with occupational exposure limit values.

Personal protective equipment

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection : The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
This recommendation is only valid for the product mentioned in the safety data sheet and provided by us and for the application specified by us.

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Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

The suitability for a specific workplace should be discussed with the producers of the protective gloves.

- | | |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Skin and body protection | : impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place. |
| Respiratory protection | : In the case of vapour formation use a respirator with an approved filter. |
| Hygiene measures | : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday. |

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Red 2

- | | |
|----------------------------------------|------------------------------------------------------------------|
| Appearance | : liquid |
| Colour | : red |
| Odour | : vinegar-like |
| pH | : 2.48 |
| Melting point/range | : no data available |
| Boiling point/boiling range | : no data available |
| Flash point | : not applicable |
| Flammability (solid, gas) | : The product is not flammable. |
| Lower explosion limit | : no data available |
| Upper explosion limit | : no data available |
| Vapour pressure | : no data available |
| Density | : 1.0048 g/cm ³ |
| Water solubility | : completely miscible |
| Partition coefficient: n-octanol/water | : no data available |
| Ignition temperature | : no data available |
| Thermal decomposition | : Hazardous decomposition products formed under fire conditions. |
| Viscosity, dynamic | : no data available |

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Appearance	: liquid
pH	: 3.0
Melting point/range	: no data available
Boiling point/boiling range	: no data available
Flash point	: not applicable
Flammability (solid, gas)	: The product is not flammable.
Lower explosion limit	: no data available
Upper explosion limit	: no data available
Vapour pressure	: no data available
Density	: 0.9901 g/cm3
Water solubility	: completely miscible
Partition coefficient: n-octanol/water	: no data available
Ignition temperature	: no data available
Thermal decomposition	: Hazardous decomposition products formed under fire conditions.
Viscosity, dynamic	: no data available
<i>Bouin's Solution</i>	
Appearance	: liquid
Colour	: yellow
Odour	: formaldehyde-like
pH	: 1.21
Melting point/range	: no data available
Boiling point/boiling range	: no data available
Flash point	: not applicable
Lower explosion limit	: no data available
Upper explosion limit	: no data available
Vapour pressure	: no data available
Density	: 1.031 g/cm3
Water solubility	: completely miscible
Partition coefficient: n-octanol/water	: no data available
Ignition temperature	: no data available
Thermal decomposition	: Hazardous decomposition products formed under fire conditions.
Viscosity, dynamic	: no data available
Explosive properties	: Explosive when dry.

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Oxidizing properties : The substance or mixture is not classified as oxidizing.

Clarifier

Appearance : liquid

Colour : colourless

Odour : vinegar-like

pH : 2.68

Melting point/range : no data available

Boiling point/boiling range : no data available

Flash point : not applicable

Flammability (solid, gas) : The product is not flammable.

Lower explosion limit : no data available

Upper explosion limit : no data available

Vapour pressure : no data available

Density : 0.9975 g/cm³

Water solubility : completely miscible

Partition coefficient: n-octanol/water : no data available

Ignition temperature : no data available

Thermal decomposition : Hazardous decomposition products formed under fire conditions.

Viscosity, dynamic : no data available

Hematoxylin A

Appearance : liquid

Colour : yellow-orange

Odour : alcohol-like

pH : 5.36

Melting point/range : no data available

Boiling point/boiling range : 78 °C

Flash point : ca. 12.5 °C

Lower explosion limit : no data available

Upper explosion limit : no data available

Vapour pressure : no data available

Density : 0.793 g/cm³

Water solubility : completely miscible

Partition coefficient: n-octanol/water : no data available

Ignition temperature : no data available

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Thermal decomposition : Hazardous decomposition products formed under fire conditions.

Viscosity, dynamic : no data available

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Hematoxylin B

Appearance : liquid

pH : 1.66

Melting point/range : no data available

Boiling point/boiling range : no data available

Flash point : not applicable

Flammability (solid, gas) : The product is not flammable.

Lower explosion limit : no data available

Upper explosion limit : no data available

Vapour pressure : no data available

Density : 1.0029 g/cm³

Water solubility : completely miscible

Partition coefficient: n-octanol/water : no data available

Ignition temperature : no data available

Thermal decomposition : Hazardous decomposition products formed under fire conditions.

Viscosity, dynamic : no data available

Mordant

Appearance : liquid

Colour : colourless

Odour : none

pH : 1.86

Melting point/range : no data available

Boiling point/boiling range : no data available

Flash point : not applicable

Flammability (solid, gas) : The product is not flammable.

Lower explosion limit : no data available

Upper explosion limit : no data available

Vapour pressure : no data available

Density : 1.001 g/cm³

Water solubility : completely miscible

Partition coefficient: n-

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octanol/water

Ignition temperature : no data available

Thermal decomposition : Hazardous decomposition products formed under fire conditions.

Viscosity, dynamic : no data available

Oxidizing properties : The substance or mixture is not classified as oxidizing.

9.2 Other information

Red 2

Conductivity : no data available

Oxidising potential : no data available

Surface tension : no data available

Trichrome Blue

Conductivity : no data available

Oxidising potential : no data available

Surface tension : no data available

Bouin's Solution

Conductivity : no data available

Oxidising potential : no data available

Surface tension : no data available

Clarifier

Conductivity : no data available

Oxidising potential : no data available

Surface tension : no data available

Hematoxylin A

Conductivity : no data available

Oxidising potential : no data available

Surface tension : no data available

Hematoxylin B

Conductivity : no data available

Oxidising potential : no data available

Surface tension : no data available

Mordant

Conductivity : no data available

Oxidising potential : no data available

Surface tension : no data available

10. Stability and reactivity

10.1 Reactivity

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No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Further information: No decomposition if stored and applied as directed.
: Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : no data available

10.6 Hazardous decomposition products

Hazardous decomposition products : no data available

11. Toxicological information

11.1 Information on toxicological effects

Further information : Solvents may degrease the skin.

Red 2

Components:

acetic acid :

Acute oral toxicity : LD50 Oral: 3,310 mg/kg, rat
Acute dermal toxicity : LD50 Dermal: 1016 µl/kg, rabbit
Acute toxicity (other routes of administration) : no data available
Skin corrosion/irritation : Result: Causes severe burns., Extremely corrosive and destructive to tissue.
Serious eye damage/eye irritation : May cause irreversible eye damage.
Respiratory or skin sensitization : Result: no data available
STOT - single exposure : Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.
Aspiration toxicity : no data available
Further information : no data available

Trichrome Blue

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Components:

acetic acid :

Acute oral toxicity	: LD50 Oral: 3,310 mg/kg, rat
Acute dermal toxicity	: LD50 Dermal: 1016 µl/kg, rabbit
Acute toxicity (other routes of administration)	: no data available
Skin corrosion/irritation	: Result: Causes severe burns., Extremely corrosive and destructive to tissue.
Serious eye damage/eye irritation	: May cause irreversible eye damage.
Respiratory or skin sensitization	: Result: no data available
STOT - single exposure	: Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.
Aspiration toxicity	: no data available
Further information	: no data available

Bouin's Solution

Components:

acetic acid :

Acute oral toxicity	: LD50 Oral: 3,310 mg/kg, rat
Acute dermal toxicity	: LD50 Dermal: 1016 µl/kg, rabbit
Acute toxicity (other routes of administration)	: no data available
Skin corrosion/irritation	: Result: Causes severe burns., Extremely corrosive and destructive to tissue.
Serious eye damage/eye irritation	: May cause irreversible eye damage.
Respiratory or skin sensitization	: Result: no data available
STOT - single exposure	: Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.
Aspiration toxicity	: no data available
Further information	: no data available

formaldehyde :

Acute oral toxicity	: LD50: 100 mg/kg, rat
	: LD50: 42 mg/kg, mouse
Acute inhalation toxicity	: LC50: 203 mg/l, rat

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	: LC50: 0.155 mg/l, 2 h, mouse,
Acute dermal toxicity	: LD50: 270 mg/kg, rabbit
Acute toxicity (other routes of administration)	: LD50: 87 mg/kg, rat
	: LD50: 300 mg/kg, mouse
	: LD50: 420 mg/kg, rat
Skin corrosion/irritation	: Result: Causes burns., Extremely corrosive and destructive to tissue.
Serious eye damage/eye irritation	: May cause irreversible eye damage.
Respiratory or skin sensitization	: Classification: May cause sensitization by skin contact., Causes sensitization.
Aspiration toxicity	: no data available
Further information	: no data available

Clarifier

Components:

acetic acid :

Acute oral toxicity	: LD50 Oral: 3,310 mg/kg, rat
Acute dermal toxicity	: LD50 Dermal: 1016 µl/kg, rabbit
Acute toxicity (other routes of administration)	: no data available
Skin corrosion/irritation	: Result: Causes severe burns., Extremely corrosive and destructive to tissue.
Serious eye damage/eye irritation	: May cause irreversible eye damage.
Respiratory or skin sensitization	: Result: no data available
STOT - single exposure	: Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.
Aspiration toxicity	: no data available
Further information	: no data available

Hematoxylin A

Components:

ethanol :

Acute oral toxicity	: LD50: 7,000 mg/kg, rat
	: LD50: 3,450 mg/kg, mouse
Acute inhalation toxicity	: LC50: 20000 ppm, 10 h, rat,

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	: LC50: 39 g/m3, 4 h, mouse,
Acute dermal toxicity	: no data available
Acute toxicity (other routes of administration)	: no data available
Skin corrosion/irritation	: This information is not available.
Serious eye damage/eye irritation	: This information is not available.
Respiratory or skin sensitization	: Result: no data available
STOT - single exposure	: Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.
Aspiration toxicity	: no data available
Further information	: no data available
methanol :	
Acute oral toxicity	: Acute toxicity estimate: 100 mg/kg, Expert judgement
	: LD50 Oral: 7,300 mg/kg, mouse
	: LD50 Oral: 5,600 mg/kg, rat
Acute inhalation toxicity	: Acute toxicity estimate: 3 mg/l, vapour, Expert judgement
	: LC50: 85.26 mg/l, 4 h, rat,
	: LC50: 64000 ppm, 4 h, rat,
Acute dermal toxicity	: Acute toxicity estimate: 300 mg/kg, Expert judgement
	: LD50 Dermal: 15,800 mg/kg, rabbit
Acute toxicity (other routes of administration)	: no data available
Skin corrosion/irritation	: The product may be absorbed through the skin., May irritate skin.
Serious eye damage/eye irritation	: Contact with eyes may cause irritation.
Respiratory or skin sensitization	: guinea pig, Did not cause sensitization on laboratory animals.
Germ cell mutagenicity	
Genotoxicity in vitro	: Ames test, Result: negative
Genotoxicity in vivo	: Result: negative
STOT - single exposure	: Assessment: Causes damage to organs.
STOT - repeated exposure	: Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

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Aspiration toxicity	: No aspiration toxicity classification
Further information	: Solvents may degrease the skin.
propan-2-ol :	
Acute oral toxicity	: LD50 Oral: 4,570 mg/kg, rat
	: LD50 Oral: 3,600 mg/kg, mouse
	: LD50 Oral: 6,410 mg/kg, rabbit
Acute inhalation toxicity	: LC50: 30 mg/l, 16000 ppm, 4 h, rat,
	: LC50: 53 mg/l, mouse
Acute dermal toxicity	: LD50 Dermal: 13,400 mg/kg, rabbit
Acute toxicity (other routes of administration)	: no data available
Skin corrosion/irritation	: May cause skin irritation in susceptible persons.
Serious eye damage/eye irritation	: Result: Irritating to eyes., May cause irreversible eye damage.
STOT - single exposure	: Assessment: May cause drowsiness or dizziness.
Aspiration toxicity	: no data available
Further information	: no data available
haematoxylin :	
Acute oral toxicity	: LD50 Oral: 400 mg/kg, rat
Acute inhalation toxicity	: no data available
Acute dermal toxicity	: no data available
Acute toxicity (other routes of administration)	: no data available
Skin corrosion/irritation	: Result: Irritating to skin., May cause skin irritation in susceptible persons.
Serious eye damage/eye irritation	: Result: Irritating to eyes., May cause irreversible eye damage.
Respiratory or skin sensitization	: Result: no data available
STOT - single exposure	: Exposure routes: Inhalation Assessment: May cause respiratory irritation.
STOT - repeated exposure	: Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Aspiration toxicity	: no data available

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Further information : no data available

Hematoxylin B

Components:

Iron(III)-chloride hexahydrate :

Acute oral toxicity : LD50 Oral: 316 mg/kg, rat

Acute inhalation toxicity : no data available

Acute dermal toxicity : no data available

Skin corrosion/irritation : rabbit, Result: Irritating to skin., May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation : rabbit, Result: Risk of serious damage to eyes., May cause irreversible eye damage.

Respiratory or skin sensitization : Result: no data available

Germ cell mutagenicity

Assessment : Not mutagenic in Ames Test.

STOT - single exposure : Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure : Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity : no data available

Further information : no data available

acetic acid :

Acute oral toxicity : LD50 Oral: 3,310 mg/kg, rat

Acute dermal toxicity : LD50 Dermal: 1016 µl/kg, rabbit

Acute toxicity (other routes of administration) : no data available

Skin corrosion/irritation : Result: Causes severe burns., Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation : May cause irreversible eye damage.

Respiratory or skin sensitization : Result: no data available

STOT - single exposure : Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

Aspiration toxicity : no data available

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Further information : no data available

Mordant

Components:

Phosphormolybdänsäure :

Acute oral toxicity : no data available

Acute inhalation toxicity : no data available

Acute dermal toxicity : no data available

Acute toxicity (other routes of administration) : no data available

Skin corrosion/irritation : Result: Causes burns., Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation : May cause irreversible eye damage.

Respiratory or skin sensitization : Result: no data available

STOT - single exposure : Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

Aspiration toxicity : no data available

Further information : no data available

12. Ecological information

12.1 Toxicity

Red 2

Components:

acetic acid :

Toxicity to fish : LC50: 410 mg/l, 48 h, Leuciscus idus (Golden orfe)

Toxicity to daphnia and other aquatic invertebrates : EC50: 95 mg/l, 24 h, Daphnia magna (Water flea)

Toxicity to algae : no data available

Toxicity to bacteria : no data available

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : no data available

Trichrome Blue

Components:

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acetic acid :

Toxicity to fish : LC50: 410 mg/l, 48 h, Leuciscus idus (Golden orfe)
Toxicity to daphnia and other aquatic invertebrates : EC50: 95 mg/l, 24 h, Daphnia magna (Water flea)
Toxicity to algae : no data available
Toxicity to bacteria : no data available

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : no data available

Bouin's Solution

Components:

acetic acid :

Toxicity to fish : LC50: 410 mg/l, 48 h, Leuciscus idus (Golden orfe)
Toxicity to daphnia and other aquatic invertebrates : EC50: 95 mg/l, 24 h, Daphnia magna (Water flea)
Toxicity to algae : no data available
Toxicity to bacteria : no data available

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : no data available

formaldehyde :

Toxicity to fish : LC50: 108 mg/l, Leuciscus idus (Golden orfe)
: LC50: 50 mg/l, Oncorhynchus mykiss (rainbow trout)
: LC50: 41 mg/l, 96 h, Danio rerio (zebra fish)
: LC100: 70 mg/l, Oncorhynchus mykiss (rainbow trout)
Toxicity to daphnia and other aquatic invertebrates : EC50: 42 mg/l, 24 h, Daphnia magna (Water flea), OECD Test Guideline 202
Toxicity to algae : 2.5 mg/l, 168 h, Scenedesmus quadricauda (Green algae)
Toxicity to bacteria : EC0: 14 mg/l, 16 h, Pseudomonas putida

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known eco-toxicological effects.

Chronic aquatic toxicity : This product has no known eco-toxicological effects.

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : no data available

Clarifier

Components:

acetic acid :

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Toxicity to fish : LC50: 410 mg/l, 48 h, Leuciscus idus (Golden orfe)
Toxicity to daphnia and other aquatic invertebrates : EC50: 95 mg/l, 24 h, Daphnia magna (Water flea)
Toxicity to algae : no data available
Toxicity to bacteria : no data available

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : no data available

Hematoxylin A

Components:

ethanol :

Toxicity to fish : LC50: 8,000 mg/l, 48 h, Leuciscus idus (Golden orfe)
: LC50: 7,100 mg/l, Oncorhynchus mykiss (rainbow trout),
OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates : EC50: 5,400 mg/l, 48 h, Daphnia magna (Water flea)
Toxicity to algae : EC0: 5,000 mg/l, 7 d, Scenedesmus quadricauda (Green algae)
Toxicity to bacteria : EC0: 6,500 mg/l, 16 h, Pseudomonas putida

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : no data available

methanol :

Toxicity to fish : LC50: 15,400 mg/l, 96 h, Lepomis macrochirus (Bluegill sunfish)
: LC50: 8,000 mg/l, 48 h, Oncorhynchus mykiss (rainbow trout)
: LC50: > 10,000 mg/l, Leuciscus idus (Golden orfe)
Toxicity to daphnia and other aquatic invertebrates : EC50: > 10,000 mg/l, 48 h, Daphnia magna (Water flea)
Toxicity to algae : 8,000 mg/l, 8 d, Scenedesmus quadricauda (Green algae)
Toxicity to bacteria : 6,600 mg/l, 16 h, Bacteria

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : no data available

propan-2-ol :

Toxicity to fish : LC0: 10,000 mg/l, Oncorhynchus mykiss (rainbow trout),
OECD Test Guideline 203
: LC50: 12,250 mg/l, Oncorhynchus mykiss (rainbow trout),
OECD Test Guideline 203
: LC100: 15,000 mg/l, Oncorhynchus mykiss (rainbow trout),

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OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates : EC50: 9,500 mg/l, 24 h, Daphnia magna (Water flea)
Toxicity to algae : EC0: 1,800 mg/l, 168 h, Scenedesmus quadricauda (Green algae), OECD Test Guideline 201
Toxicity to bacteria : EC0: 1,050 mg/l, 16 h, Pseudomonas putida

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : no data available

haematoxylin :

Toxicity to fish : no data available
Toxicity to daphnia and other aquatic invertebrates : no data available
Toxicity to algae : no data available
Toxicity to bacteria : no data available

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : no data available

Hematoxylin B

Components:

Iron(III)-chloride hexahydrate :

Toxicity to fish : LC50: 22 mg/l, 96 h, Pimephales promelas (fathead minnow)
Toxicity to daphnia and other aquatic invertebrates : EC50: 9.6 mg/l, 48 h, Daphnia magna (Water flea)
Toxicity to algae : no data available
Toxicity to bacteria : no data available

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : no data available

acetic acid :

Toxicity to fish : LC50: 410 mg/l, 48 h, Leuciscus idus (Golden orfe)
Toxicity to daphnia and other aquatic invertebrates : EC50: 95 mg/l, 24 h, Daphnia magna (Water flea)
Toxicity to algae : no data available
Toxicity to bacteria : no data available

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to : no data available

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the environment

Mordant

Components:

Phosphormolybdänsäure :

Toxicity to fish : LC100: 25 mg/l, Fish
Toxicity to daphnia and other aquatic invertebrates : no data available
Toxicity to algae : EC100: 54 mg/l, Scenedesmus quadricauda (Green algae)
Toxicity to bacteria : no data available

Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : no data available

12.2 Persistence and degradability

Red 2

Components:

acetic acid :

Biodegradability : 71 %, Exposure time: 5 d

Trichrome Blue

Components:

acetic acid :

Biodegradability : 71 %, Exposure time: 5 d

Bouin's Solution

Components:

acetic acid :

Biodegradability : 71 %, Exposure time: 5 d

formaldehyde :

Biodegradability : no data available

Clarifier

Components:

acetic acid :

Biodegradability : 71 %, Exposure time: 5 d

Hematoxylin A

Components:

ethanol :

Biodegradability : no data available

methanol :

Biodegradability : 99 %, Result: Readily biodegradable., Exposure time: 30 d, OECD Test Guideline 301

propan-2-ol :

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Biodegradability : 99 %, Exposure time: 11 d, OECD Test Guideline 302
: 57 %, Exposure time: 5 d, OECD Test Guideline 302

haematoxylin :

Biodegradability : no data available

Hematoxylin B

Components:

Iron(III)-chloride hexahydrate :

Biodegradability : no data available

acetic acid :

Biodegradability : 71 %, Exposure time: 5 d

Mordant

Components:

Phosphormolybdänsäure :

Biodegradability : no data available

12.3 Bioaccumulative potential

Red 2

Components:

acetic acid :

Bioaccumulation : no data available

Trichrome Blue

Components:

acetic acid :

Bioaccumulation : no data available

Bouin's Solution

Components:

acetic acid :

Bioaccumulation : no data available

formaldehyde :

Bioaccumulation : no data available

Clarifier

Components:

acetic acid :

Bioaccumulation : no data available

Hematoxylin A

Components:

ethanol :

Bioaccumulation : no data available

methanol :

Bioaccumulation : Does not bioaccumulate.

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propan-2-ol :

Bioaccumulation : no data available

haematoxylin :

Bioaccumulation : no data available

Hematoxylin B

Components:

Iron(III)-chloride hexahydrate :

Bioaccumulation : no data available

acetic acid :

Bioaccumulation : no data available

Mordant

Components:

Phosphormolybdänsäure :

Bioaccumulation : no data available

12.4 Mobility in soil

Red 2

Components:

acetic acid :

Mobility : no data available

Distribution among : no data available

environmental compartments

Environmental fate and : no data available

pathways

Physico-chemical : no data available

removability

Trichrome Blue

Components:

acetic acid :

Mobility : no data available

Distribution among : no data available

environmental compartments

Environmental fate and : no data available

pathways

Physico-chemical : no data available

removability

Bouin's Solution

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Components:

acetic acid :

Mobility : no data available
Distribution among environmental compartments : no data available
Environmental fate and pathways : no data available
Physico-chemical removability : no data available

formaldehyde :

Mobility : no data available
Distribution among environmental compartments : no data available
Environmental fate and pathways : no data available
Physico-chemical removability : no data available

Clarifier

Components:

acetic acid :

Mobility : no data available
Distribution among environmental compartments : no data available
Environmental fate and pathways : no data available
Physico-chemical removability : no data available

Hematoxylin A

Components:

ethanol :

Mobility : no data available
Distribution among environmental compartments : no data available
Environmental fate and pathways : no data available
Physico-chemical removability : no data available

methanol :

Mobility : no data available
Distribution among environmental compartments : no data available
Environmental fate and pathways : no data available
Physico-chemical removability : no data available

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propan-2-ol :

Mobility : no data available
Distribution among environmental compartments : no data available
Environmental fate and pathways : no data available
Physico-chemical removability : no data available

haematoxylin :

Mobility : no data available
Distribution among environmental compartments : no data available
Environmental fate and pathways : no data available
Physico-chemical removability : no data available

Hematoxylin B

Components:

Iron(III)-chloride hexahydrate :

Mobility : no data available
Distribution among environmental compartments : no data available
Environmental fate and pathways : no data available
Physico-chemical removability : no data available

acetic acid :

Mobility : no data available
Distribution among environmental compartments : no data available
Environmental fate and pathways : no data available
Physico-chemical removability : no data available

Mordant

Components:

Phosphormolybdänsäure :

Mobility : no data available
Distribution among environmental compartments : no data available
Environmental fate and pathways : no data available
Physico-chemical removability : no data available

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12.5 Results of PBT and vPvB assessment

Red 2

Components:

acetic acid :

Assessment

: This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Trichrome Blue

Components:

acetic acid :

Assessment

: This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Bouin's Solution

Components:

acetic acid :

Assessment

: This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

formaldehyde :

Assessment

: This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Clarifier

Components:

acetic acid :

Assessment

: This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Hematoxylin A

Components:

ethanol :

Assessment

: This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

methanol :

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Assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

propan-2-ol :
Assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

haematoxylin :
Assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Hematoxylin B

Components:

Iron(III)-chloride hexahydrate :
Assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

acetic acid :
Assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Mordant

Components:

Phosphormolybdänsäure :
Assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Red 2

Components:

acetic acid :

Biochemical Oxygen : no data available
Demand (BOD)

Dissolved organic carbon : no data available

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(DOC)
Chemical Oxygen Demand : no data available
(COD)
Adsorbed organic bound : no data available
halogens (AOX)

Trichrome Blue

Components:

acetic acid :

Biochemical Oxygen : no data available
Demand (BOD)
Dissolved organic carbon : no data available
(DOC)
Chemical Oxygen Demand : no data available
(COD)
Adsorbed organic bound : no data available
halogens (AOX)

Bouin's Solution

Components:

acetic acid :

Biochemical Oxygen : no data available
Demand (BOD)
Dissolved organic carbon : no data available
(DOC)
Chemical Oxygen Demand : no data available
(COD)
Adsorbed organic bound : no data available
halogens (AOX)

formaldehyde :

Biochemical Oxygen : no data available
Demand (BOD)
Dissolved organic carbon : no data available
(DOC)
Chemical Oxygen Demand : no data available
(COD)
Adsorbed organic bound : no data available
halogens (AOX)

Clarifier

Components:

acetic acid :

Biochemical Oxygen : no data available
Demand (BOD)
Dissolved organic carbon : no data available
(DOC)
Chemical Oxygen Demand : no data available
(COD)

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Adsorbed organic bound halogens (AOX) : no data available

Hematoxylin A

Components:

ethanol :

Biochemical Oxygen Demand (BOD) : no data available
Dissolved organic carbon (DOC) : no data available
Chemical Oxygen Demand (COD) : no data available
Adsorbed organic bound halogens (AOX) : no data available

methanol :

Biochemical Oxygen Demand (BOD) : 600 - 1,120 mg/g, Biochemical oxygen demand, 5 d
Dissolved organic carbon (DOC) : no data available
Chemical Oxygen Demand (COD) : 1,420 mg/g
Adsorbed organic bound halogens (AOX) : no data available

propan-2-ol :

Biochemical Oxygen Demand (BOD) : no data available
Dissolved organic carbon (DOC) : no data available
Chemical Oxygen Demand (COD) : no data available
Adsorbed organic bound halogens (AOX) : no data available

haematoxylin :

Biochemical Oxygen Demand (BOD) : no data available
Dissolved organic carbon (DOC) : no data available
Chemical Oxygen Demand (COD) : no data available
Adsorbed organic bound halogens (AOX) : no data available

Hematoxylin B

Components:

Iron(III)-chloride hexahydrate :

Biochemical Oxygen : no data available

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Demand (BOD)
Dissolved organic carbon (DOC) : no data available
Chemical Oxygen Demand (COD) : no data available
Adsorbed organic bound halogens (AOX) : no data available

acetic acid :

Biochemical Oxygen Demand (BOD) : no data available
Dissolved organic carbon (DOC) : no data available
Chemical Oxygen Demand (COD) : no data available
Adsorbed organic bound halogens (AOX) : no data available

Mordant

Components:

Phosphormolybdänsäure :

Biochemical Oxygen Demand (BOD) : no data available
Dissolved organic carbon (DOC) : no data available
Chemical Oxygen Demand (COD) : no data available
Adsorbed organic bound halogens (AOX) : no data available

13. Disposal considerations

13.1 Waste treatment methods

Product : Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
Can be disposed as waste water, when in compliance with local regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

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14. Transport information

14.1 UN number

DOT	: 3316
IMDG	: 3316
IATA	: 3316

14.2 Proper shipping name

DOT	: Chemical kits
IMDG	: Chemical kit
IATA	: Chemical kit

14.3 Transport hazard class

DOT	: 9
IMDG	: 9
IATA	: 9

14.4 Packing group

DOT	
Packaging group	: II
Labels	: 9
Tunnel restriction code	: packed
IMDG	
Packaging group	: II
Labels	: 9
EmS Number	: F-A, S-P
IATA_C	
Packing instruction (cargo aircraft)	: 960
Packaging group	: II
Labels	: 9
IATA_P	
Packing instruction (passenger aircraft)	: 960
Packaging group	: II
Labels	: 9

14.5 Environmental hazards

DOT	
Environmentally hazardous	: no

IMDG	
Marine Pollutant	: no

IATA	
Environmentally hazardous	: no

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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Remarks : not applicable

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Red 2

REGULATORY INFORMATION

OSHA Hazards : Corrosive to skin

WHMIS Classification : E Corrosive Material
Corrosive to skin

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

CERCLA Reportable Quantity

Components : acetic acid 5000 lbs

SARA 302 Reportable Quantity

Product : This material does not contain any components with a SARA 302 RQ.

SARA 311/312 Hazards : Acute Health Hazard

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 302 : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 304 : This material does not contain any components with a section 304 EHS RQ.

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489):

acetic acid 1.5 %

Clean Water Act

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This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

US State Regulations

Massachusetts Right To Know

Components : acetic acid 1 - 5 %

Pennsylvania Right To Know

Components : water 60 - 100 %
acetic acid 1 - 5 %

New Jersey Right To Know

Components : water 60 - 100 %
acetic acid 1 - 5 %
sodium 6-(2-hydroxynaphthylazo)-3,4'-azodibenzene-sulphonate 1 - 5 %

California Prop 65 Components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Trichrome Blue

REGULATORY INFORMATION

OSHA Hazards : Corrosive to skin

WHMIS Classification : E Corrosive Material
Corrosive to skin

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

CERCLA Reportable Quantity

Components : acetic acid 5000 lbs

SARA 302 Reportable Quantity

Product : This material does not contain any components with a SARA 302 RQ.

Acute Health Hazard

EPCRA - Emergency Planning and Community Right-to-Know Act

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SARA 302 : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 304 : This material does not contain any components with a section 304 EHS RQ.

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

acetic acid 1 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

US State Regulations

Massachusetts Right To Know

Components : acetic acid 1 - 5 %

Pennsylvania Right To Know

Components : water 60 - 100 %
acetic acid 1 - 5 %

New Jersey Right To Know

Components : water 60 - 100 %
acetic acid 1 - 5 %

California Prop 65 Components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Bouin's Solution

REGULATORY INFORMATION

OSHA Hazards : Highly toxic by inhalation
Toxic by ingestion

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WHMIS Classification : Toxic by skin absorption
Skin sensitiser
Corrosive to skin
Carcinogen

: D1A Very Toxic Material Causing Immediate and Serious Toxic Effects
Highly toxic by inhalation
D1B Toxic Material Causing Immediate and Serious Toxic Effects
Toxic by ingestion
D2A Very Toxic Material Causing Other Toxic Effects
Toxic by skin absorption
D2B Toxic Material Causing Other Toxic Effects
Carcinogen
E Corrosive Material
Skin sensitiser

Corrosive to metals

Corrosive to skin

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

CERCLA Reportable Quantity

Components : formaldehyde 100 lbs

SARA 302 Reportable Quantity

Product : 2778lbs

Components : formaldehyde
Acute Health Hazard
Chronic Health Hazard

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 302 : The following components are subject to reporting levels established by SARA Title III, Section 302:

Components : formaldehyde

SARA 304 :
Components : formaldehyde

Components : formaldehyde

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

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The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

formaldehyde 3.6 %

The following chemical(s) are listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F):

formaldehyde 3.6 %

The following chemical(s) are listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F):

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489):

acetic acid 5 %

formaldehyde 3.6 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

US State Regulations

Massachusetts Right To Know

Components	: acetic acid	5 - 10 %
	formaldehyde	1 - 5 %

Pennsylvania Right To Know

Components	: water	60 - 100 %
	acetic acid	5 - 10 %
	formaldehyde	1 - 5 %
	picric acid	0 - 0.1 %

New Jersey Right To Know

Components	: water	60 - 100 %
	acetic acid	5 - 10 %
	formaldehyde	1 - 5 %

California Prop 65 Components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Clarifier

REGULATORY INFORMATION

OSHA Hazards : Corrosive to skin

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WHMIS Classification : E Corrosive Material
Corrosive to skin

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

CERCLA Reportable Quantity

Components : acetic acid 5000 lbs

SARA 302 Reportable Quantity

Product : This material does not contain any components with a SARA 302 RQ.

Acute Health Hazard

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 302 : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 304 : This material does not contain any components with a section 304 EHS RQ.

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489):

acetic acid 1 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

US State Regulations

Massachusetts Right To Know

Components : acetic acid 1 - 5 %

Pennsylvania Right To Know

Components : water 60 - 100 %

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acetic acid

1 - 5 %

New Jersey Right To Know

Components

: water 60 - 100 %
sodium 6-(2-hydroxynaphthylazo)-3,4'-azodibenzene-sulphonate 1 - 5 %
acetic acid 1 - 5 %

California Prop 65 Components

: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Hematoxylin A

REGULATORY INFORMATION

TSCA list

: Listed

(a) List of substances. The following chemical substances are subject to all the provisions of part 716. Manufacturers, importers, and processors of a listed substance are subject to the reporting requirements of subpart A for that substance.

OSHA Hazards

: Flammable liquid
Toxic by ingestion
Moderate skin irritant
Moderate eye irritant
Carcinogen

WHMIS Classification

: B2 Flammable liquid
Flammable liquid
D1B Toxic Material Causing Immediate and Serious Toxic Effects
Toxic by ingestion
D2B Toxic Material Causing Other Toxic Effects
Moderate skin irritant

Moderate eye irritant

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

CERCLA Reportable Quantity

Components

: methanol 5000 lbs
methanol 5000 lbs

SARA 302 Reportable Quantity

Product

: This material does not contain any components with a SARA 302 RQ.

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Fire Hazard
Acute Health Hazard
Chronic Health Hazard

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 302 : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 304 : This material does not contain any components with a section 304 EHS RQ.

Components : methanol

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

methanol 4.75 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489):

ethanol 85.5 %

methanol 4.75 %

propan-2-ol 4.75 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

US State Regulations

Massachusetts Right To Know

Components	:	ethanol	70 - 90 %
		methanol	1 - 5 %
		propan-2-ol	1 - 5 %

Pennsylvania Right To Know

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Components	:	ethanol	70 - 90 %
		methanol	1 - 5 %
		propan-2-ol	1 - 5 %
		water	1 - 5 %

New Jersey Right To Know

Components	:	ethanol	70 - 90 %
		methanol	1 - 5 %
		propan-2-ol	1 - 5 %
		water	1 - 5 %
		haematoxylin	1 - 5 %

California Prop 65 Components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Hematoxylin B

REGULATORY INFORMATION

OSHA Hazards : Toxic by ingestion
Corrosive to skin
Severe eye irritant

WHMIS Classification : D1B Toxic Material Causing Immediate and Serious Toxic Effects
Toxic by ingestion
E Corrosive Material
Corrosive to metals

Corrosive to skin

Corrosive to eyes

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

CERCLA Reportable Quantity

Components	:	<u>Iron(III)-chloride</u>	1000 lbs
		<u>hexahydrate</u>	

SARA 302 Reportable Quantity

Product : This material does not contain any components with a SARA 302 RQ.

Acute Health Hazard

EPCRA - Emergency Planning and Community Right-to-Know Act

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SARA 302 : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 304 : This material does not contain any components with a section 304 EHS RQ.

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

acetic acid 1 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

US State Regulations

Massachusetts Right To Know

Components	: Iron(III)-chloride hexahydrate	1 - 5 %
	acetic acid	1 - 5 %

Pennsylvania Right To Know

Components	: water	90 - 100 %
	Iron(III)-chloride hexahydrate	1 - 5 %
	acetic acid	1 - 5 %

New Jersey Right To Know

Components	: water	90 - 100 %
	Iron(III)-chloride hexahydrate	1 - 5 %
	acetic acid	1 - 5 %

California Prop 65 Components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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Mordant

REGULATORY INFORMATION

OSHA Hazards : Corrosive to skin

WHMIS Classification : E Corrosive Material
Corrosive to metals

Corrosive to skin

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

CERCLA Reportable Quantity

SARA 302 Reportable Quantity

Product : This material does not contain any components with a SARA 302 RQ.

Acute Health Hazard

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 302 : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 304 : This material does not contain any components with a section 304 EHS RQ.

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

US State Regulations

Massachusetts Right To Know

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No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

Components	:	water	60 - 100 %
		Phosphormolybdänsäure	1 - 5 %

New Jersey Right To Know

Components	:	water	60 - 100 %
		Phosphormolybdänsäure	1 - 5 %

California Prop 65 Components	:	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.	
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15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance when it is used in the specified applications.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

R 1	Explosive when dry.
R10	Flammable.
R11	Highly flammable.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R22	Harmful if swallowed.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.

Full text of H-Statements referred to under sections 2 and 3.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.