



Flemming's Safranin solution

Revision date: 25.04.2017

Product code: 2C-144

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Flemming's Safranin solution

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

Use of the substance/mixture

Use as laboratory reagent

1.3. Details of the supplier of the safety data sheet

Company name:	Waldeck GmbH & Co KG	
	Division Chroma	
Street:	Havixbecker Str. 62	
Place:	D-48161 Münster	
Post-office box:	410180	
	D-48065 Münster	
Telephone:	+49(0)180/2247662	Telefax: +49(0)180/1247662
Responsible Department:	Labor	
	Mo. – Do.: 08.00 – 17.00 Uhr, Fr.: 08.00 – 15.00 Uhr	
1.4. Emergency telephone number:	+49(0)180/2247662	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Flammable liquid: Flam. Liq. 2

Acute toxicity: Acute Tox. 4

Acute toxicity: Acute Tox. 4

Acute toxicity: Acute Tox. 4

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1

Germ cell mutagenicity: Muta. 2

Carcinogenicity: Carc. 2

Specific target organ toxicity - single exposure: STOT SE 1

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:

Highly flammable liquid and vapour.

Harmful if swallowed.

Harmful in contact with skin.

Harmful if inhaled.

Causes serious eye irritation.

May cause an allergic skin reaction.

Suspected of causing genetic defects.

Suspected of causing cancer.

Causes damage to organs.

May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

methanol

aniline

Signal word: Danger



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Pictograms:



Hazard statements

H225	Highly flammable liquid and vapour.
H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H370	Causes damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330	Rinse mouth.
P304+P312	IF INHALED: Call a doctor if you feel unwell.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P235	Store in a well-ventilated place. Keep cool.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
67-56-1	methanol			15 - < 20 %
	200-659-6			
	Flam. Liq. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 1; H225 H301 H311 H331 H370			
62-53-3	aniline			1 - < 5 %
	200-539-3			
	Carc. 2, Muta. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, Eye Dam. 1, Skin Sens. 1, STOT RE 1, Aquatic Acute 1; H351 H341 H301 H311 H331 H318 H317 H372 H400			
477-73-6	Safranin O			1 - < 5 %
	207-518-8			
	Eye Dam. 1; H318			

Full text of H and EUH statements: see section 16.



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SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. Medical treatment necessary.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Medical treatment necessary.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide (CO₂), Foam, Extinguishing powder.

5.2. Special hazards arising from the substance or mixture

Highly flammable. Vapours can form explosive mixtures with air.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13



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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on storage compatibility

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

Further information on storage conditions

storage temperature: 2 °C - 8 °C

7.3. Specific end use(s)

Use as laboratory reagent

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
62-53-3	Aniline	1	4		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL

8.2. Exposure controls



Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four



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control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	red brown
Odour:	characteristic

Test method

pH-Value:	not determined
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Changes in the physical state

Melting point:	not determined
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Initial boiling point and boiling range:	65 °C
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Flash point:	9 °C
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Flammability

Solid:	not applicable
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Gas:	not applicable
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Lower explosion limits:	6 vol. %
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Upper explosion limits:	50 vol. %
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Ignition temperature:	440 °C
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Auto-ignition temperature

Solid:	not applicable
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Gas:	not applicable
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Decomposition temperature:	not determined
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Oxidizing properties

Not oxidizing.

Vapour pressure: (at 20 °C)	129 hPa
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Vapour pressure: (at 50 °C)	552 hPa
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Density:	not determined
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Water solubility: (at 20 °C)	easily soluble
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Solubility in other solvents

not determined

Partition coefficient:	not determined
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Vapour density:	not determined
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Evaporation rate:	not determined
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Solvent content:	18,26 %
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9.2. Other information



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Solid content:

not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

ATEmix calculated

ATE (oral) 579,2 mg/kg; ATE (dermal) 1744,7 mg/kg; ATE (inhalative vapour) 16,43 mg/l; ATE (inhalative aerosol) 2,738 mg/l

Acute toxicity

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
67-56-1	methanol				
	oral	LD50 mg/kg	5628	Rat	
	dermal	LD50 mg/kg	17100	Rabbit	
	inhalative (4 h) vapour	LC50 mg/l	85,26	Rat	Irritation to respiratory tract
	inhalative aerosol	ATE	0,5 mg/l		
62-53-3	aniline				
	oral	LD50 mg/kg	250	Rat	GESTIS
	dermal	LD50 mg/kg	837	Rabbit	GESTIS
	inhalative vapour	ATE	3 mg/l		
	inhalative aerosol	ATE	0,5 mg/l		

Additional information on tests

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

SECTION 12: Ecological information

12.1. Toxicity



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The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
67-56-1	methanol					
	Acute fish toxicity	LC50 mg/l	15400	96 h	Lepomis macrochirus (Bluegill)	
	Acute crustacea toxicity	EC50 mg/l	>10000	48 h	Daphnia magna (Big water flea)	
	Acute bacteria toxicity	(6600 mg/l)				
62-53-3	aniline					
	Acute fish toxicity	LC50 mg/l	57,6	96 h	Brachydanio rerio (zebra-fish)	GESTIS
	Acute algae toxicity	ErC50	175 mg/l	72 h	Chlorella pyrenoidosa	GESTIS

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
67-56-1	methanol			
	OECD 301D/ EEC 92/69/V, C.4-E	99 %	30	
	Readily biodegradable (according to OECD criteria).			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
67-56-1	methanol	-0,77
62-53-3	aniline	0,9

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information



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Land transport (ADR/RID)

14.1. UN number:

UN 1986

14.2. UN proper shipping name:

ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (ENTH. METHANOL)

14.3. Transport hazard class(es):

3

14.4. Packing group:

II

Hazard label:

3+6.1



Classification code:

FT1

Special Provisions:

274

Limited quantity:

1 L

Excepted quantity:

E2

Transport category:

2

Hazard No:

336

Tunnel restriction code:

D/E

Inland waterways transport (ADN)

14.1. UN number:

UN 1986

14.2. UN proper shipping name:

ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (ENTH. METHANOL)

14.3. Transport hazard class(es):

3

14.4. Packing group:

II

Hazard label:

3+6.1



Classification code:

FT1

Special Provisions:

274 802

Limited quantity:

1 L

Excepted quantity:

E2

Marine transport (IMDG)

14.1. UN number:

UN 1986

14.2. UN proper shipping name:

ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (CONT. METHANOL)

14.3. Transport hazard class(es):

3

14.4. Packing group:

II

Hazard label:

3+6.1



Special Provisions:

274

Limited quantity:

1 L

Excepted quantity:

E2

EmS:

F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:

UN 1986

14.2. UN proper shipping name:

ALCOHOLS, FLAMMABLE, TOXIC, N.O.S. (CONT. METHANOL)

14.3. Transport hazard class(es):

3

14.4. Packing group:

II



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Hazard label:

3+6.1



Special Provisions:

A3

Limited quantity Passenger:

1 L

Passenger LQ:

Y341

Excepted quantity:

E2

IATA-packing instructions - Passenger:

352

IATA-max. quantity - Passenger:

1 L

IATA-packing instructions - Cargo:

364

IATA-max. quantity - Cargo:

60 L

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC): 18,26 %

2004/42/EC (VOC): 18,26 %

Information according to 2012/18/EU (SEVESO III): H3 STOT SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE

Additional information: P5c

Additional information

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

National regulatory information

Employment restrictions:

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D):

2 - water contaminating

Skin resorption/Sensitization:

Permeates easily through outer skin and causes poisoning. Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances



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CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Acute Tox. 4; H302	Calculation method
Acute Tox. 4; H312	Calculation method
Acute Tox. 4; H332	Calculation method
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method
Muta. 2; H341	Calculation method
Carc. 2; H351	Calculation method
STOT SE 1; H370	Calculation method
STOT RE 2; H373	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled.
H311	Toxic in contact with skin.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)