

Safety Data Sheet
MICROWAVE COPPER STAIN KIT (EU)



Safety Data Sheet
MICROWAVE COPPER STAIN KIT (EU)

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

1.1 Product identifier

Product name	MICROWAVE COPPER STAIN KIT (EU)
Product number	KT0033
Brand	MICROWAVE COPPER STAIN KIT

Other means of identification

Component 1: Rhodamine Solution, RSS
Component 2: Acetate Buffer Solution, SAB
Component 3: Hematoxylin, Mayer's (Lillie's Modification), HMM

1.2 Relevant identified uses of the substance or mixture and uses advised against
In Vitro Diagnostic Use

1.3 Details of the supplier of the safety data sheet

Name	Diagnostic Biosystems
Address	6616 Owens Drive Pleasanton CA 94588 USA
Telephone	(888) 896-3350
email	customersupport@dbiosys.com

1.4 Emergency telephone number

(925) 484-3350 (9AM-6PM, Monday - Friday, Pacific Standard Time)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

- Skin corrosion/irritation (chapter 3.2), Cat. 2, H315

For the full text corresponding to the "H"-codes displayed in this section, refer to Section 16.

2.2 Label elements

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Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms



1. Exclamation mark

Signal word

Warning

Hazard statements

H315

Causes skin irritation

H317

May cause an allergic skin reaction

H332

Harmful if inhaled

Precautionary statements

P261

Avoid breathing dust/fume/gas/mist/vapors/spray.

P271

Use only outdoors or in a well-ventilated area.

P272

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

P280

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

P302+P352

IF ON SKIN: Wash with plenty of water.

P304+P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312

Call a POISON CENTER/doctor if you feel unwell.

P333+P313

If skin irritation or rash occurs: Get medical advice/attention.

P362+P364

Take off contaminated clothing and wash it before reuse.

P501

Dispose of contents/container to a licensed disposal company.

P264

Wash hands thoroughly after handling.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Component 1.

1. Alcohol

Concentration

<= 95 % (volume)

Other names / synonyms

ABSOLUTE ETHANOL; ALCOHOL DEHYDRATED; ALCOHOL, ANHYDROUS; Alcoholum / ethanolum; ALGRAIN; ANHYDROL; COLOGNE SPIRIT; COLOGNE SPIRITS (ALCOHOL); Ethanol; ETHANOL 200 PROOF; ETHANOL SOLUTION; ETHYL ALCOHOL; ETHYL ALCOHOL ANHYDROUS; ETHYL HYDRATE; ETHYL HYDROXIDE; FERMENTATION ALCOHOL; GRAIN ALCOHOL; JAYSOL; JAYSOL S; METHYLCARBINOL; MOLASSES ALCOHOL; NCI-C03134; POTATO ALCOHOL; SD ALCOHOL 23-HYDROGEN; SPIRIT; SPIRITS OF WINE; TECSOL; UN 1170

EC no.

200-578-6

CAS no.

64-17-5

Index no.

603-002-00-5

- Flammable liquids (chapter 2.6), Cat. 2

H225

Highly flammable liquid and vapor

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2. Isopropyl alcohol

Concentration <= 5 % (volume)

Other names / synonyms 2-HYDROXYPROPANE; 2-Propanol; 2-PROPYL ALCOHOL; ALCOJEL; ALCOSOLVE; ALCOSOLVE 2; AVANTIN; AVANTINE; CHROMAR; COMBI-SCHUTZ; DIMETHYLCARBINOL; HARTOSOL; IMSOL A; ISOHOL; Isopropanol; LUTOSOL; N-PROPAN-2-OL; PETROHOL; PRO; PROPAN-2-OL; Propan-2-ol, isopropanol; PROPOL; reaction mass of: bis(1S,2S,4S)-(1-benzyl-4-tert-butoxycarboxamido-2-hydroxy-5-phenyl)pentylammonium succinate; SEC-PROPYL ALCOHOL; SPECTRAR; STERISOL HAND DISINFECTANT; TAKINEOCOL; UN 1219

EC no. 414-810-0

CAS no. 67-63-0

Index no. 607-403-00-6

- Flammable liquids (chapter 2.6), Cat. 2
- Eye damage/irritation (chapter 3.3), Cat. 2
- Specific target organ toxicity, single exposure (chapter 3.8), Cat. 3
- Specific target organ toxicity, repeated exposure (chapter 3.9), Cat. 2
- Eye damage/irritation (chapter 3.3), Cat. 1
- Hazardous to the aquatic environment, short-term (acute) (chapter 4.1), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic) (chapter 4.1), Cat. 1

H225 Highly flammable liquid and vapor
H318 Causes serious eye damage
H319 Causes serious eye irritation
H335 May cause respiratory irritation
H336 May cause drowsiness or dizziness
H373 May cause damage to organs through prolonged or repeated exposure
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

3. 5-(4-Dimethylaminobenzylidene)rhodanine

Concentration <= 0.4 % (weight)

Other names / synonyms 4-Thiazolidinone, 5-[[4-(dimethylamino)phenyl]methylene]-2-thioxo-;

CAS no. 536-17-4

Component 2.

1. Sodium acetate

Concentration <= 1 % (weight)

Other names / synonyms Acetic acid, sodium salt; Acetic acid, sodium salt (1:1); Natrii acetat; Sodium acetate, anhydrous

CAS no. 127-09-3

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Component 3.

1. Aluminum sulfate

Concentration	<= 5 % (weight)
Other names / synonyms	Aluminii sulfas; Aluminium sulfate; Aluminium sulphate; Sulfuric acid, aluminum salt (3:2)
CAS no.	10043-01-3

2. Acetic acid

Concentration	<= 2 % (volume)
Other names / synonyms	acetic acid; ACETIC ACID; ACETIC ACID, GLACIAL; ACETICACID; Acidum aceticum; ETHANOIC ACID; ETHYLIC ACID; GLACIAL ACETIC ACID; METHANECARBOXYLIC ACID; UN 2789; UN 2790; VINEGAR ACID
EC no.	200-580-7
CAS no.	64-19-7
Index no.	607-002-00-6

- Flammable liquids (chapter 2.6), Cat. 3
- Skin corrosion/irritation (chapter 3.2), Cat. 1A

H226	Flammable liquid and vapor
H314	Causes severe skin burns and eye damage
SCLs/M-factors/ATEs	Skin Corr. 1A; H314: C ≥ 90 % Skin Corr. 1B; H314: 25 % ≤ C < 90 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %

3. HEMATOXYLIN

Concentration	<= 1 % (weight)
Other names / synonyms	Benz[b]indeno[1,2-d]pyran-3,4,6a,9,10(6H)-pentol, 7,11b-dihydro-, cis-(++)-;
CAS no.	517-28-2

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes	Consult a physician. Show this safety data sheet to the doctor in attendance.
Following inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Following skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.

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Following eye contact	Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
Following ingestion	Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.
Self-protection of the first aider	Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Use extinguishing media appropriate for surrounding fire.

5.2 Special hazards arising from the substance or mixture

Ethanol: Carbon oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Ensure adequate ventilation. Use personal protective equipment. For personal protection see section 8.

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

6.2 Environmental precautions

Should not be released into the environment. See Section 12 for additional ecological information.

6.3 Methods and material for containment and cleaning up

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Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

CAS: 64-17-5

Alcohol

ACGIH (USA): (ST) 1000 ppm TLV® inhalation; Cal/OSHA: 1000 ppm PEL inhalation; NIOSH: 1000 ppm REL inhalation; OSHA: 1000 ppm PEL inhalation; 1900 mg/m³ PEL inhalation

CAS: 64-19-7 (EC: 200-580-7)

Acetic acid

ACGIH (USA): 15 ppm STEL inhalation; 10 ppm, (ST) 15 ppm TLV® inhalation; 10 ppm TWA inhalation; Cal/OSHA (USA): 40 ppm C inhalation; 10 ppm, (ST) 15 ppm, (C) 40 ppm PEL inhalation; 10 ppm, 25 mg/m³ PEL inhalation; 15 ppm, 37 mg/m³ STEL inhalation; NIOSH (USA): 10 ppm, (ST) 15 ppm REL inhalation; 15 ppm, 37 mg/m³ ST inhalation; 10 ppm, 25 mg/m³ TWA inhalation; OSHA (USA): 25 mg/m³ PEL inhalation; 10 ppm PEL inhalation; 10 ppm, 25 mg/m³ TWA inhalation

CAS: 67-63-0

Isopropyl alcohol

ACGIH (USA): 200 ppm, (ST) 400 ppm TLV® inhalation; Cal/OSHA: 400 ppm, (ST) 500 ppm PEL inhalation; NIOSH: 400 ppm, (ST) 500 ppm REL inhalation; OSHA: 400 ppm PEL inhalation; 980 mg/m³ PEL inhalation

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Individual protection measures, such as personal protective equipment

Pictograms



Eye and face protection

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Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal hazards

No data available

Control banding approach

No data available.

Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Clear
Colour	Not Applicable
Odour	Not Applicable
Odour threshold	No data available.
pH	Various
Melting point/freezing point	No data available.
Boiling point or initial boiling point and boiling range	No data available.
Flash point	No data available.
Evaporation rate	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Vapor pressure	No data available.
Relative vapor density	No data available.
Density and/or relative density	No data available.
Solubility	No data available.
Partition coefficient n-octanol/water (log value)	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Kinematic viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Particle characteristics

No data available.

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9.2 Other information

9.2.1 Information with regard to physical hazard classes

No data available.

9.2.2 Other safety characteristics

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

None under normal use conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None under normal use conditions.

10.4 Conditions to avoid

Exposure to moisture.

Avoid storing in direct sunlight and avoid extremes of temperature.

Heat, flames and sparks.

10.5 Incompatible materials

Ethanol: Alkali metals, Oxidizing agents, Peroxides

Isopropanol: Oxidizing agents, Acid anhydrides, Aluminium, Halogenated compounds, Acids

Acetic acid: Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, e.g. potassium permanganate, Amines, Alcohols, Nitric acid

10.6 Hazardous decomposition products

Other decomposition products - No data available In the event of fire: see section 5

Isopropanol: Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

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Ethanol: ACGIH: A3 Confirmed animal carcinogen with unknown relevance to humans.

Acetic acid

LD50 Oral - Rat - 3,310 mg/kg

Acetic acid

LC50 Inhalation - Mouse - 5620 ppm - 1 h

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Other. Blood:Other changes.

Acetic acid

LC50 Inhalation - Rat - 11.4 mg/l - 4 h

Acetic acid

LD50 Skin - Rat - 1,112 mg/kg

ETHANOL

LD50 Oral - Rat - 10,470 mg/kg

ETHANOL

LD50 Skin - Rabbit - 15,800 mg/kg

ETHANOL

LD50 Inhalation - Rat - 30,000 mg/l - 4 h

ISOPROPANOL

LD50 Oral - Rat - 5,045 mg/kg

Remarks: Behavioral:Altered sleep time (including change in righting reflex). Behavioral:Somnolence (general depressed activity).

ISOPROPANOL

LC50 Inhalation - Rat - 16000 ppm - 8 h

ISOPROPANOL

LD50 Skin - Rabbit - 12,800 mg/kg

Skin corrosion/irritation

Acetic acid

LD50 Skin - Rat - 1,112 mg/kg

ETHANOL

LD50 Skin - Rabbit - 15,800 mg/kg

ETHANOL

OECD Test Guideline 404 Skin - Rabbit - 24 h

Result: No skin irritation

ISOPROPANOL

LD50 Skin - Rabbit - 12,800 mg/kg

Serious eye damage/irritation

ETHANOL

OECD Test Guideline 405 Eyes - Rabbit

Result: Moderate eye irritation

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Respiratory or skin sensitization

Acetic acid

LD50 Skin - Rat - 1,112 mg/kg

Acetic acid

LC50 Inhalation - Mouse - 5620 ppm - 1 h

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Other. Blood:Other changes.

Acetic acid

LC50 Inhalation - Rat - 11.4 mg/l - 4 h

Acetic acid

LD50 Skin - Rat - 1,112 mg/kg

ETHANOL

LD50 Skin - Rabbit - 15,800 mg/kg

ETHANOL

LD50 Inhalation - Rat - 30,000 mg/l - 4 h

ETHANOL

OECD Test Guideline 404 Skin - Rabbit - 24 h

Result: No skin irritation

ISOPROPANOL

LC50 Inhalation - Rat - 16000 ppm - 8 h

ISOPROPANOL

LD50 Skin - Rabbit - 12,800 mg/kg

Germ cell mutagenicity

Based on available data, classification data are not met

Carcinogenicity

ISOPROPANOL

LC50 - Pimephales promelas (fathead minnow) - 9,640.00 mg/l - 96 h

Reproductive toxicity

Based on available data, classification data are not met

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

Acetic acid

LC50 Inhalation - Mouse - 5620 ppm - 1 h

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Other. Blood:Other changes.

Acetic acid

LC50 Inhalation - Rat - 11.4 mg/l - 4 h

Safety Data Sheet

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ETHANOL

LD50 Inhalation - Rat - 30,000 mg/l - 4 h

ISOPROPANOL

LC50 Inhalation - Rat - 16000 ppm - 8 h

11.2 Information on other hazards

Endocrine disrupting properties

No data available.

Other information

Acetic acid

LD50 Oral - Rat - 3,310 mg/kg

ETHANOL

LD50 Oral - Rat - 10,470 mg/kg

ISOPROPANOL

LD50 Oral - Rat - 5,045 mg/kg

Remarks: Behavioral:Altered sleep time (including change in righting reflex). Behavioral:Somnolence (general depressed activity).

SECTION 12: Ecological information

12.1 Toxicity

Acetic acid

LC50 - Oncorhynchus mykiss (rainbow trout) - >1,000 mg/l - 96 h

Citation: (OECD Test Guideline 203)

Acetic acid

EC50 - Daphnia magna (water flea) - >300.82 mg/l - 48 h

Citation: (OECD Test Guideline 202)

ETHANOL

EC50 - Chlorella vulgaris (Fresh water algae) - 275 mg/l - 72 h

ETHANOL

LC50 - Pimephales promelas (fathead minnow) - 14,200 mg/l - 96 h

ETHANOL

LC50 - Ceriodaphnia dubia (water flea) - 5,012 mg/l - 48 h

ISOPROPANOL

LC50 - Pimephales promelas (fathead minnow) - 9,640.00 mg/l - 96 h

ISOPROPANOL

EC50 - Daphnia magna (water flea) - 5,102.00 mg/l - 24 h

ISOPROPANOL

EC50 - Daphnia magna (water flea) - 6,851 mg/l - 24 h

ISOPROPANOL

EC50 - Desmodemus subspicatus (chodat) - > 2,000.00 mg/l - 72 h

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ISOPROPANOL
EC50 - Algae - > 1,000.00 mg/l - 24 h

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product disposal

Offer surplus and non-recyclable solutions to a licensed disposal company.

Packaging disposal

Dispose of as unused product.

Waste treatment

No data available

Sewage disposal

Do not let product enter drains

Other disposal recommendations

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

SECTION 14: Transport information

14.1	UN Number	None
14.2	UN Proper Shipping Name	None
14.3	Transport hazard class(es)	None
14.4	Packing group	None
14.5	Environmental hazards	None
14.6	Special precautions for user	None
14.7	Maritime transport in bulk according to IMO instruments	None

SECTION 15: Regulatory information

15.2 Chemical Safety Assessment

The supplier of this product has not conducted any Chemical Safety Assessment

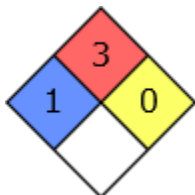
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HMIS Rating

MICROWAVE COPPER STAIN KIT (EU)	
HEALTH	1
FLAMMABILITY	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	G

NFPA Rating



SECTION 16: Other information

Full text of hazard statements referenced in Section 2

H315 Causes skin irritation

SDS-0124, Rev. C

Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Diagnostic BioSystems be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Diagnostic BioSystems has been advised of the possibility of such damages.