

Safety Data Sheet MICROWAVE COPPER STAIN KIT (OSHA)

SECTION 1: Identification

1.1 GHS Product identifier

Product name MICROWAVE COPPER STAIN KIT (OSHA 2)

Product number KT0033 Brand MICROWAVE COPPER STAIN KIT

1.2 Other means of identification

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

1.3 Recommended use of the chemical and restrictions on use In Vitro Diagnostic Use

1.4 Supplier's details

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

1.5 Emergency phone number

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

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Skin corrosion/irritation (C.4.4), Cat. 2

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word	Warning
Hazard statement(s)	
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H332	Harmful if inhaled
Precautionary statement(s)	
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must 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 EC no. CAS no. Index no.	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 200-578-6 64-17-5 603-002-00-5
- Flammable liquids (C.4.19), Cat. 2	
H225	Highly flammable liquid and vapor
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 (C.4.19), Cat. 2 Serious eye damage/eye irritation Specific target organ toxicity (single) Specific target organ toxicity (repeating to the second seco	(chapter 3.3), Cat. 2 e exposure) (C.4.11), Cat. 3 ated exposure) (C.4.12), Cat. 2

- Eye damage/irritation (C.4.5), 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 CAS no.	4-Thiazolidinone, 5-[[4-(dimethylamino)phenyl]methylene]-2-thioxo-; 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 acetas; Sodium acetate, anhydrous
CAS no.	127-09-3

Component 3. 1. Aluminum sulfate Concentration

<= 5 % (weight)

Other names / synonyms CAS no.	Aluminii sulfas; Aluminium sulfate; Aluminium sulphate; Sulfuric acid, aluminum salt (3:2) 10043-01-3
2. Acetic acid Concentration	<= 2 % (volume)
Other names / synonyms EC no. CAS no. Index no.	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 200-580-7 64-19-7 607-002-00-6
- Flammable liquids (C.4.19), Cat. 3 - Skin corrosion/irritation (C.4.4), Cat	. 1A
H226 H314 SCLs/M-factors/ATEs	Flammable liquid and vapor Causes severe skin burns and eye damage Skin Corr. 1A; H314: $C \ge 90 \%$ Skin Corr. 1B; H314: 25 % $\le C < 90 \%$ Skin Irrit. 2; H315: 10 % $\le C < 25 \%$ Eye Irrit. 2; H319: 10 % $\le C < 25 \%$
3. HEMATOXYLIN Concentration	<= 1 % (weight)
Other names / synonyms CAS no.	Benz[b]indeno[1,2-d]pyran-3,4,6a,9,10(6H)-pentol, 7,11b-dihydro-, cis-(++)-; 517-28-2

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	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.
In case of skin contact	Rinse with plenty of water. Get medical attention if irritation develops and persists.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

If swallowed 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.

Personal protective equipment for first-aid responders

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

- **4.2** Most important symptoms/effects, 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 immediate medical attention and special treatment needed, if necessary** No data available

SECTION 5: Fire-fighting measures

- 5.1 Suitable extinguishing media Use extinguishing media appropriate for surrounding fire.
- 5.2 Specific hazards arising from the chemical

-----Ethanol: Carbon oxides

5.3 Special protective actions for fire-fighters 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 materials for containment and cleaning up

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).

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.

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 Appropriate engineering controls

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

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms



Eye/face protection

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 and safety characteristics

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

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Particle characteristics

No data available.

Supplemental information regarding physical hazard classes No data available.

Further safety characteristics (supplemental) 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

Information on toxicological effects

Acute toxicity

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

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

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

ISOPROPANOL LC50 Inhalation - Rat - 16000 ppm - 8 h

Additional 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

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

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

Persistence and degradability No data available.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Results of PBT and vPvB assessment

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

Endocrine disrupting properties No data available.

Other adverse effects No data available.

SECTION 13: Disposal considerations

Disposal 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

DOT (US) Not dangerous goods

IMDG Not dangerous goods

IATA Not dangerous goods

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

California Prop. 65 Components WARNING! This product contains a chemical known to the State of California to cause cancer. CAS-No. 64-17-5: Ethanol

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. CAS-No. 64-17-5: Ethanol

Canadian Domestic Substances List (DSL)

Chemical name: Ethanol CAS: 64-17-5

Chemical name: 2-Propanol

CAS: 67-63-0

Chemical name: 4-Thiazolidinone, 5-[[4-(dimethylamino)phenyl]methylene]-2-thioxo-CAS: 536-17-4

Chemical name: Acetic acid, sodium salt CAS: 127-09-3

Chemical name: Sulfuric acid, aluminum salt (3:2) CAS: 10043-01-3

Chemical name: Acetic acid CAS: 64-19-7

Chemical name: Benz[b]indeno[1,2-d]pyran-3,4,6a,9,10(6H)-pentol, 7,11b-dihydro-, cis-(++)-CAS: 517-28-2

Massachusetts Right To Know Components

Chemical name: Ethanol CAS number: 64-17-5

Isopropyl alcohol CAS number: 67-63-0

Chemical name: Aluminum sulfate CAS number: 10043-01-3

Acetic acid CAS number: 64-19-7

New Jersey Right To Know Components

Common name: ETHYL ALCOHOL CAS number: 64-17-5

Isopropyl alcohol CAS number: 67-63-0

Common name: ALUMINUM SULFATE CAS number: 10043-01-3

Acetic acid CAS number: 64-19-7

Pennsylvania Right To Know Components

Chemical name: Ethanol CAS number: 64-17-5

Isopropyl alcohol CAS number: 67-63-0

Chemical name: Sulfuric acid, aluminum salt (3:2) CAS number: 10043-01-3

Acetic acid CAS number: 64-19-7

SARA 302 Components

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

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313: Isopropyl alcohol CAS number: 67-63-0

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

15.2 Chemical Safety Assessment

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

HMIS Rating

MICROWAVE COPPER STAIN KIT (OSHA	
2)	
HEALTH	1
FLAMMABILITY	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	G

NFPA Rating



SECTION 16: Other information

SDS-0124, Rev. C

16.1 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.