

# SAFETY DATA SHEET

Cat# BN00415 ml Steiner Stain Kit

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Steiner Stain Kit  
**PRODUCT CODES:** Cat# BN00415  
**MANUFACTURER:** Assay Genie (brand of Reagent Genie Ltd.)  
**ADDRESS:** G1 The Steelworks, Foley Street, Dublin 1  
**EMERGENCY PHONE:** +353 1 8879802

## SECTION 2: HAZARDS IDENTIFICATION

Component	Description	BN00415	Safety Information
Oxidizer Solution	Contains EtOH Phenol	125 ml	See below
Zinc Formalin Solution	Contains Formalin	125 ml	See below
Gum Mastic Solution	Contains EtOH	125 ml	See below
Hydroquinone	Hydroquinone	1.5 gm	See below
Silver Nitrate Solution (0.2%)	Liquid	125 ml	No hazards
Silver Nitrate Solution (1%)	Liquid	9 ml	No hazards

### Ethanol:

#### Emergency Overview

**OSHA Hazards:** Combustible liquid, Target organ effect, Irritant, Carcinogen

**Target Organs:** Nerves, Liver, Heart

**GHS Classification:** Flammable liquids (Category 3)  
Skin irritation (Category 2)  
Eye irritation (Category 2B)  
Specific target organ toxicity – single exposure (Category 3)

**GHS Label elements, including precautionary statements**



**Pictogram:**

**Signal word:** Warning

**Hazard statement(s):** H226 Flammable liquid and vapor.  
H315+H320 Causes skin and eye irritation.  
H335 May cause respiratory irritation.

**Precautionary statement(s):** P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### HMIS Classification

**Health hazard:** 2

**Chronic health hazard:** \*

**Flammability:** 2

**Physical hazards:** 0

#### NFPA Rating

**Health Hazard:** 2

**Fire:** 2

**Reactivity Hazard:** 0

#### Potential Health Effects

**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.

**Skin:** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes:** Causes eye irritation.

**Ingestion:** May be harmful if swallowed.

### Formalin:

#### Emergency Overview

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**OSHA Hazards:** Combustible liquid, Carcinogen, Target organ effect, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption, Skin sensitizer, Irritant, Corrosive

**Target Organs:** Eyes, Kidney, Liver, Heart, Central nervous system

**GHS Classification:** Flammable liquids (Category 4)  
Acute toxicity, Oral (Category 3)  
Acute toxicity, Inhalation (Category 3)  
Acute toxicity, Dermal (Category 3)  
Skin irritation (Category 2)  
Serious eye damage (Category 1)  
Skin sensitization (Category 1)  
Carcinogenicity (Category 2)  
Specific target organ toxicity – single exposure (Category 1)

### GHS Label elements, including precautionary statements

#### Pictogram:



**Signal word:** Danger

**Hazard statement(s):** H227 Combustible liquid.

H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H370 Causes damage to organs

H402 Harmful to aquatic life

**Precautionary statement(s):** P210 Keep away from heat/sparks/open flames/hot surfaces – no smoking.

P260 Do not breathe dust/fume/gas/mist/vapour/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P284 Wear respiratory protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

### HMIS Classification

**Health hazard:** 3

**Chronic health hazard:** \*

**Flammability:** 2

**Physical hazards:** 0

### NFPA Rating

**Health Hazard:** 3

**Fire:** 2

**Reactivity Hazard:** 0

### Potential Health Effects

**Inhalation:** Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Causes respiratory tract irritation.

**Skin:** May be fatal if absorbed through skin. Causes skin burns.

**Eyes:** Causes eye burns.

**Ingestion:** Toxic if swallowed.

### Phenol:

#### Emergency Overview

**OSHA Hazards:** Target organ effect, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption, Corrosive, Mutagen

**Target Organs:** Central nervous system, Kidney, Liver, Pancreas, Spleen

**Other hazards which do not result in classification:** Rapidly absorbed through skin, Vessicant

**GHS Classification:** Acute toxicity, Oral (Category 3)  
Acute toxicity, Inhalation (Category 3)  
Acute toxicity, Dermal (Category 3)  
Skin corrosion (Category 1B)  
Serious eye damage (Category 1)  
Germ cell mutagenicity (Category 2)  
Specific target organ toxicity – single exposure (Category 2)  
Specific target organ toxicity – repeated exposure (Category 2)  
Acute aquatic toxicity (Category 3)

### GHS Label elements, including precautionary statements

#### Pictogram:



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**Signal word:** Danger  
**Hazard statement(s):** H301+H311 Toxic if swallowed or in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H331 Toxic if inhaled.  
H341 Suspected of causing genetic defects.  
H371 May cause damage to organs.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H402 Harmful to aquatic life.

**Precautionary statement(s):** P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
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 lenses, if present and easy to do. Continue rinsing.  
P307+P311 IF exposed: Call a POISON CENTER or doctor/physician.  
P310 Immediately call a POISON CENTER or doctor/physician.

## HMIS Classification

**Health hazard:** 3

**Fire hazard:** \*

**Flammability:** 0

**Physical hazards:** 0

## NFPA Rating

**Health Hazard:** 3

**Fire:** 2

**Reactivity Hazard:** 0

## Potential Health Effects

**Inhalation:** Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Skin:** Toxic if absorbed through skin. Causes skin burns.

**Eyes:** Causes eye burns.

**Ingestion:** Toxic if swallowed.

## Hydroquinone:

### Emergency Overview

#### GHS Classification:

Acute toxicity, Oral (Category 4), H302

Serious eye damage (Category 1), H318

Skin sensitisation (Category 1), H317

Germ cell mutagenicity (Category 2), H341

Carcinogenicity (Category 2), H351

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

#### GHS Label elements, including precautionary statements

#### Pictogram:



**Signal word:** Danger  
**Hazard statement(s):** H302 Harmful if swallowed.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H341 Suspected of causing genetic defects.  
H351 Suspected of causing cancer.  
H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statement(s):** P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapour/ 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.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

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P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

P391 Collect spillage.

P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal plant.

### HMIS Classification

Health hazard: 2

Chronic health hazard: \*

Flammability: 1

Physical hazards: 0

### NFPA Rating

Health Hazard: 2

Fire: 1

Reactivity Hazard: 0

### Potential Health Effects

**Inhalation:** May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Skin:** Harmful if absorbed through skin. Causes skin burns.

**Eyes:** Causes eye burns.

**Ingestion:** Harmful if swallowed.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	EC-No.	Molecular Weight	Chemical Formula
Phenol	108-95-2	203-632-7	94.11	C <sub>6</sub> H <sub>6</sub> O
Ethanol	64-17-5	200-578-6	46.07	C <sub>2</sub> H <sub>6</sub> O
Formalin	50-00-0	200-001-8	30.03	CH <sub>2</sub> O
Hydroquinone	123-31-9	-	110.11	C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>

## SECTION 4: FIRST AID MEASURES

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed:** DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## SECTION 5: FIRE-FIGHTING MEASURES

### Ethanol:

**Condition of flammability:** Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters:** Wear self-contained breathing apparatus for firefighting if necessary.

**Hazardous combustion products:** Hazardous decomposition products formed under fire conditions— see section 10.

**Further information:** Use water spray to cool unopened containers.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

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

**Methods for 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.

## SECTION 7: HANDLING AND STORAGE

### Precautions for safe handling

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Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition – no smoking. Take measures to prevent the build up of electrostatic charge.

### Conditions for safe storage

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.

Recommended storage temperature: MT

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Phenol:

Components	CAS-No.	Value	Control parameters	Basis
Phenol	108-95-2	TWA	5 ppm	USA. ACGIH Threshold Limit Values (TLV)
Remarks:	Central nervous system impairment, upper respiratory tract irritation, lung damage. Substances for which there is a Biological Exposure Index or Indices. Not classifiable as a human carcinogen. Danger of cutaneous absorption.			
		TWA	5 ppm 19 mg/m <sup>3</sup>	USA. OSHA – Table Z-1 Limits for Air Contaminants – 1910.1000
	Skin notation.			
		STEL	5 ppm 19 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) – Table Z-1 Limits for Air Contaminants
	Skin designation. The value in mg/m <sup>3</sup> is approximate.			
		TWA	5 ppm 19 mg/m <sup>3</sup>	USA. NIOSH recommended exposure limits
	Potential for dermal absorption. 15 minute ceiling value.			
		C	15.6 ppm 60 mg/m <sup>3</sup>	USA. NIOSH recommended exposure limits
	Potential for dermal absorption. 15 minute ceiling value.			

### Ethanol:

Components	CAS-No.	Value	Control parameters	Basis
Ethanol	64-17-5	TWA	1,000 ppm	USA. ACGIH Threshold Limit Values (TLV)
Remarks:	Upper respiratory tract irritation. Confirmed animal carcinogen with unknown relevance to humans.			
		TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	USA. OSHA: TABLE Z-1 Limits for Air Contaminants – 1910.1000
		TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA): Table Z-1 Limits for Air Contaminants
	The value in mg/m <sup>3</sup> is approximate.			
		TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	USA. NIOSH recommended exposure limits

### Formalin:

Components	CAS-No.	Value	Control parameters	Basis
Formalin	50-00-0	C	0.3 ppm	USA. ACGIH Threshold Limit Values (TLV)
Remarks:	Eye & upper respiratory tract irritation. Suspected human carcinogen. Sensitizer.			
	Substance listed: for more information see OSHA document 1910.1048			
	Substance listed: for more information see OSHA document 1910.1048			
	See 1910.1048			
		TWA	0.016 ppm	USA. NIOSH Recommended Exposure Limits
	Potential occupational carcinogen. See Appendix A.			
		C	0.1 ppm	USA. NIOSH Recommended Exposure Limits
	Potential occupational carcinogen. See Appendix A. 15 minute ceiling value.			
		TWA	0.016 ppm	USA. NIOSH Recommended Exposure Limits
	Potential occupational carcinogen.			
		C	0.1 ppm	USA. NIOSH Recommended Exposure Limits
	Potential occupational carcinogen.			

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a

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full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Hand 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.

### Eye protection

Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Skin and body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Phenol	Ethanol	Formalin	Hydroquinone
Appearance:	Solid	Clear liquid	Liquid	White solid
pH:	6.0	No data available	4.5-6	No data available
Water Solubility:	No data available	Completely soluble	Completely miscible	No data available
Other Solubility:	No data available	No data available	No data available	No data available
Boiling Point (°C):	182 °C (360 °F)	78-80 °C (172.4-176 °F)	100 °C (212 °F)	No data available
Melting Point (°C):	40-42 °C (104-108 °F)	-144 °C (-227.2 °F)	No data available	No data available
Flash Point (°C):	79.0 °C (174.2 °F) – closed cup	14 °C (57.2 °F)	85 °C (185 °F)	No data available
Ignition Temperature (°C):	715 °C (1,319 °F)	363 °C (685°F)	No data available	No data available
Density:	1.071 g/ml at 25 °C (77 °F)	0.79 g/cm <sup>3</sup>	1.080 g/cm <sup>3</sup>	No data available

## SECTION 10: STABILITY AND REACTIVITY

Property	Formalin	Ethanol	Phenol	Hydroquinone
Chemical stability:	Stable under recommended storage conditions			
Conditions to avoid:	Heat, flames, sparks	Heat, flames, sparks, extreme temperatures, direct sunlight	No data available	No data available
Materials to avoid:	Strong bases, acids, oxidizing agents, alkali metals, strong oxidizing agents, amines, strong acids, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline	Oxidizing agents, alkali metals, ammonia, peroxides	Strong oxidizing agents, strong bases	Acids, acid anhydrides, strong oxidizing agents
Hazardous decomposition products:	Carbon oxides	Carbon oxides	Carbon oxides	No data available

## SECTION 11: TOXICOLOGICAL INFORMATION

### Phenol:

**Acute toxicity:** LD50 Oral – rat – 317 mg/kg □ Remarks: Behavioral: convulsions or effect on seizure threshold.

LD50 Oral – rat – 410-650 mg/kg

LC50 Inhalation – rat – 900 mg/m<sup>3</sup> – 8 h

LD50 Dermal – rabbit – 630 mg/kg

**Skin corrosion/irritation:** Skin – rabbit – severe skin irritation – 24 h

**Serious eye damage/eye irritation:** Eyes – rabbit – severe eye irritation

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** In vitro tests showed mutagenic effects.

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**Carcinogenicity:** This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classification.

IARC: 3 – Group 3: Not classifiable as to its carcinogenicity to humans (Phenol)  
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.  
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** no data available

**Teratogenicity:** no data available

**Specific target organ toxicity – single exposure (GHS):** no data available

**Specific target organ toxicity – repeated exposure (GHS):** May cause damage to organs through prolonged or repeated exposure.

**Aspiration hazard:** no data available

### Potential Health Effects

**Inhalation:** Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Skin:** Toxic if absorbed through skin. Causes skin burns.

**Eyes:** Causes eye burns.

**Ingestion:** Toxic if swallowed.

**Signs and Symptoms of Exposure:** To the best of our knowledge, the chemical, physical, and toxicological properties have not been through investigated.

**Synergistic effects:** no data available

**Additional information:** RTECS: SJ3325000

### Ethanol:

**Acute toxicity:** LD50 Oral – rat – 7,060 mg/kg □ Remarks: Lungs, thorax, or respiration : other changes

LC50 Inhalation – rat – 10 h – 20000 ppm

**Skin corrosion/irritation:** Skin – rabbit – irritating to skin – 24 h

**Serious eye damage/eye irritation:** Eyes – rabbit – mild eye irritation – 24 h (Draize test)

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

**Carcinogenicity:** Carcinogenicity – mouse – oral □ Tumorigenic: equivocal tumorigenic agent by RTECS criteria. Liver: tumors. Blood: Lymphomas including Hodgkin's disease.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.  
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** Reproductive toxicity – human – female – oral □ Effects on newborn: apgar score (human only), other neonatal measures or effects, and drug dependence.

**Teratogenicity:** no data available

**Specific target organ toxicity – single exposure (GHS):** Inhalation – may cause respiratory irritation.

**Specific target organ toxicity – repeated exposure (GHS):** no data available

**Aspiration hazard:** no data available

### Potential Health Effects

**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.

**Skin:** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes:** Causes eye irritation.

**Ingestion:** May be harmful if swallowed.

**Signs and Symptoms of Exposure:** Exposure may cause central nervous system depression, narcosis, and/or damage to the heart. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Additional information:** RTECS: KQ6300000

### Formalin:

**Acute toxicity:** no data available

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** no data available

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available

### Carcinogenicity:

IARC: 1 – Group 1: Carcinogenic to humans (Formaldehyde)  
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.  
NTP: Known to be human carcinogen (Formaldehyde)

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OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** no data available

**Teratogenicity:** no data available

**Specific target organ toxicity – single exposure (GHS):** no data available

**Specific target organ toxicity – repeated exposure (GHS):** no data available

**Aspiration hazard:** no data available

### Potential Health Effects

**Inhalation:** Toxic if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Causes respiratory tract irritation.

**Skin:** May be fatal if absorbed through skin. Causes skin burns.

**Eyes:** Causes eye burns.

**Ingestion:** Toxic if swallowed.

**Signs and Symptoms of Exposure:** Exposure may cause nausea, dizziness, gastrointestinal disturbance, weakness, confusion, drowsiness, unconsciousness, and/or convulsions.

**Synergistic effects:** no data available

**Additional information:** RTECS: not available

### Hydroquinone:

**Acute toxicity:** LD50 Oral - Rat - 367.3 mg/kg

(OECD Test Guideline 401)

Inhalation: No data available

LD50 Dermal - Rabbit - > 2,000 mg/kg

(OECD Test Guideline 402)

No data available

**Skin corrosion/irritation:** no data available

**Serious eye damage/eye irritation:** no data available

**Respiratory or skin sensitization:** in vivo assay - Mouse

Result: May cause sensitisation by skin contact.

May cause allergic skin reaction.

(OECD Test Guideline 429)

**Germ cell mutagenicity:** Laboratory experiments have shown mutagenic effects.

In vitro tests showed mutagenic effects

DNA repair

Rat - Liver cells

Result: negative

Mutagenicity (micronucleus test)

Mouse

Result: positive

**Carcinogenicity:** This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** no data available.

**Teratogenicity:** no data available

**Specific target organ toxicity – single exposure (GHS):** no data available

**Specific target organ toxicity – repeated exposure (GHS):** no data available

**Aspiration hazard:** no data available

### Potential Health Effects

**Inhalation:** May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

**Skin:** Harmful if absorbed through skin. Causes skin burns.

**Eyes:** Causes eye burns.

**Ingestion:** Harmful if swallowed.

**Signs and Symptoms of Exposure:** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Synergistic effects:** no data available

**Additional information:** RTECS: MX3500000

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## SECTION 12: ECOLOGICAL INFORMATION



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## Phenol:

**Persistence and degradability:** no data available

## Toxicity:

Toxicity to fish □ LC50 – Leuciscus idus (Golden orfe) – 14.00-25.00 mg/l – 48 h

LC50 – Carassius auratus (Goldfish) – 36.10-68.80 mg/l – 96 h

Toxicity to daphnia and other aquatic invertebrates □ EC50 – Daphnia magna (Water flea) – 12.00 mg/l – 24 h

EC 100 – Daphnia magna (Water flea) – 100.00 mg/l – 24 h

Toxicity to algae □ EC50 – Chlorella vulgaris (Fresh water algae) – 370.00 mg/l – 96 h

**Bioaccumulative potential:** no data available

**Mobility in soil:** no data available

**PBT and vPvB assessment:** no data available

**Other adverse effects:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Harmful to aquatic life.

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## SECTION 13: DISPOSAL CONSIDERATIONS

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**Product:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

**Contaminated packaging:** Dispose of as unused product.

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## SECTION 14: TRANSPORT INFORMATION

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### Phenol:

**DOT (US):** UN-number: 1671, Class: 6.1, Packing group: II; Proper shipping name: Phenol, solid; Reportable Quantity (RQ): 1000 lbs; Marine pollutant: No; Poison inhalation hazard: No

**IMDG:** UN-number: 1671, Class: 6.1, Packing group: II; EMS-No: F-A, S-A; Proper shipping name: PHENOL, SOLID; Marine pollutant: No

**IATA:** UN-number: 1671, Class: 6.1, Packing group: II; Proper shipping name: Phenol, solid

### Ethanol:

**DOT (US):** UN-number: 1170, Class: 3, Packing group: II; Proper shipping name: Ethanol; Marine pollutant: No; Poison inhalation hazard: No

**IMDG:** UN-number: 1170, Class: 3, Packing group: II; EMS-No: F-E, S-D; Proper shipping name: ETHANOL; Marine pollutant: No

**IATA:** UN-number: 1170, Class: 3, Packing group: II; Proper shipping name: Ethanol

### Formalin:

**DOT (US):** UN-Number: 1993 Class: CBL Packing group: III; Proper shipping name: Combustible liquid, n.o.s. (Formalin); Reportable Quantity (RQ): 2500 lbs.; Marine pollutant: No; Poison Inhalation Hazard: No

**IMDG:** Not dangerous goods.

**IATA:** Not dangerous goods.

### Hydroquinone:

**DOT (US):** UN number: 3077 Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Hydroquinone)

Reportable Quantity (RQ): 100 lbs

Poison Inhalation Hazard: No

**IMDG:** UN number: 3077 Class: 9 Packing group: III EMS-No: F-A, S-F

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Hydroquinone)

Marine pollutant: yes

**IATA:** UN number: 3077 Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Hydroquinone)

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## SECTION 15: REGULATORY INFORMATION

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**SARA 302 Components:** SARA 302: Phenol, CAS-No. 108-95-2; Revision Date: 2007-07-01

Formaldehyde, CAS-No. 50-00-0; Revision Date: 2007-07-01.

Hydroquinone, CAS-No. 123-31-9

**SARA 313 Components:** The following components are subject to reporting levels established by SARA Title II, Section 313:

SARA 302: Phenol, CAS-No. 108-95-2; Revision Date: 2007-07-01

Formaldehyde, CAS-No. 50-00-0; Revision Date: 2007-07-01.

Hydroquinone, CAS-No. 123-31-9

### SARA 311/312 Hazards:

Ethanol, Phenol, Formalin: Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Hydroquinone, Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components:** Ethanol, CAS-No. 64-17-5, Revision Date: 2007-03-01

Formaldehyde, CAS-No. 50-00-0; Revision Date: 2007-07-01.

Phenol, CAS-No. 108-95-2; Revision Date: 2007-07-01

Hydroquinone, CAS-No. 123-31-9

# SAFETY DATA SHEET

## Cat# BN00415 ml Steiner Stain Kit

**Pennsylvania Right To Know Components:** Ethanol, CAS-No. 64-17-5, Revision Date: 2007-03-01

Phenol, CAS-No. 108-95-2; Revision Date: 2007-07-01

Formaldehyde, CAS-No. 50-00-0; Revision Date: 2007-07-01.

Hydroquinone, CAS-No. 123-31-9

## **New Jersey Right To Know Components:**

Ethanol, CAS-No. 64-17-5, Revision Date: 2007-03-01

Phenol, CAS-No. 108-95-2; Revision Date: 2007-07-01

Formaldehyde, CAS-No. 50-00-0; Revision Date: 2007-07-01.

Hydroquinone, CAS-No. 123-31-9

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

## EU regulations

Component	Risk Phrases	Safety Phrases
Phenol	R23/24/25, R34, R48/20/21/22, R68	S24/25, S26, S28, S36/37/39, S45
Ethanol	R11, R20/21/22	S16, S36/37/39, S45
Formalin	R23/24/25, R40, R43	S36/37
Pemetrexed	R22, R34, R61	S26, S36/37/39, S45, S53

## SECTION 16: OTHER INFORMATION

### DISCLAIMER:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Assay Genie shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.