

## MUCICARMINE STAINING KIT

Version 1.2

Revision Date 05-26-2014

Print Date 06-04-2014

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : MUCICARMINE STAINING KIT

Mat.-No./ Genisys-No. : 05279275001

#### Manufacturer or supplier's details

Company : Roche Diagnostics Limited  
Charles Avenue

Address : Burgess Hill  
RH15 9RY West Sussex

Telephone : +44 1444 256000

Telefax : +44 1444 256239

Emergency telephone : +49(0)621-759-2012 oder +49(0)621-759-4848 oder  
number +49(0)8856-60-2629

Emergency telephone number:

In case of emergencies: : Health, Safety & +44 1444 256500 or +44 7802  
(Roche Diagnostics Ltd.) Environment 260498

- +44 1444 256561 or +44 7710

Product Safety / Vigilance 391653

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Toxicology 24Hr help-line: : NPIS: +44 844 892 0111

Health Advice 24Hr help-line: NHS Direct: +44 845 4647

NHS 24: +44 8454 242424

#### Recommended use of the chemical and restrictions on use

Restrictions on use : For professional users only.

### SECTION 2. HAZARDS IDENTIFICATION

Physical state	liquid
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#### GHS Classification

Flammable liquids : Category 2  
Corrosive to metals : Category 1  
Skin corrosion : Category 1A  
Serious eye damage : Category 1  
Respiratory sensitisation : Category 1  
Skin sensitisation : Category 1  
Carcinogenicity : Category 1A

#### GHS Label element

Hazard pictograms :



Signal word : Danger

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- Hazard statements : H225 Highly flammable liquid and vapour.  
H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H350 May cause cancer.
- Precautionary statements : **Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P234 Keep only in original container.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 Wash skin thoroughly after handling.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor/ physician.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P363 Wash contaminated clothing before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
P390 Absorb spillage to prevent material damage.  
**Storage:**  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.  
P406 Store in corrosive resistant stainless steel container with a resistant inner liner.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

**Potential Health Effects**

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Aggravated Medical Condition : None known.  
Symptoms of Overexposure : No information available.

**Carcinogenicity:****SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS*****Mucicarmine Stain***

Substance / Mixture : Mixture

**Hazardous components**

Chemical Name	CAS-No.	Concentration [%]
aluminium chloride	7446-70-0	$\geq 1$ - $< 5$

***Hematoxylin A***

Substance / Mixture : Mixture

**Hazardous components**

Chemical Name	CAS-No.	Concentration [%]
ethanol	64-17-5	$\geq 70$ - $< 90$
methanol	67-56-1	$\geq 1$ - $< 5$
propan-2-ol	67-63-0	$\geq 1$ - $< 5$
haematoxylin	517-28-2	$\geq 1$ - $< 5$

***Hematoxylin B***

Substance / Mixture : Mixture

**Hazardous components**

Chemical Name	CAS-No.	Concentration [%]
Iron(III)-chloride hexahydrate	10025-77-1	$\geq 1$ - $< 5$

***Tartrazine Counterstain***

Substance / Mixture : Mixture

**Hazardous components**

Chemical Name	CAS-No.	Concentration [%]
trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate	1934-21-0	$\geq 0.1$ - $< 1$

**SECTION 4. FIRST AID MEASURES**

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

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	Do not leave the victim unattended.
If inhaled	: Move to fresh air. If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of skin contact	: Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	: Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	: Clean mouth with water and drink afterwards plenty of water. Keep respiratory tract clear. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.
Most important symptoms and effects, both acute and delayed	: No information available.
Notes to physician	: The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

**SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media	: Alcohol-resistant foam Carbon dioxide (CO <sub>2</sub> ) Dry chemical
Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments.

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Use a water spray to cool fully closed containers.

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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

Environmental precautions : Prevent product from entering drains.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.

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

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**SECTION 7. HANDLING AND STORAGE**

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

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

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION*****Mucicarmine Stain*****Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
aluminium chloride	7446-70-0	TWA	2 mg/m <sup>3</sup>	OSHA P0
		TWA	2 mg/m <sup>3</sup>	NIOSH REL

***Hematoxylin A*****Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	OSHA P0
		STEL	1,000 ppm	ACGIH
methanol	67-56-1	TWA	200 ppm	ACGIH
		STEL	250 ppm	ACGIH
		TWA	200 ppm 260 mg/m <sup>3</sup>	NIOSH REL
		ST	250 ppm 325 mg/m <sup>3</sup>	NIOSH REL
		TWA	200 ppm 260 mg/m <sup>3</sup>	OSHA Z-1
		TWA	200 ppm 260 mg/m <sup>3</sup>	OSHA P0
		STEL	250 ppm 325 mg/m <sup>3</sup>	OSHA P0
propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m <sup>3</sup>	NIOSH REL
		ST	500 ppm 1,225 mg/m <sup>3</sup>	NIOSH REL
		TWA	400 ppm 980 mg/m <sup>3</sup>	OSHA Z-1
		TWA	400 ppm 980 mg/m <sup>3</sup>	OSHA P0
		STEL	500 ppm 1,225 mg/m <sup>3</sup>	OSHA P0

**Biological occupational exposure limits**

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Component	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Methanol	67-56-1	Methanol	Urine	End of shift (As soon as possible after exposure ceases)	15 mg/l	ACGIH BEI
Isopropanol	67-63-0	Acetone	Urine	End of shift at end of workweek	40 mg/l	ACGIH BEI

***Hematoxylin B*****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

***Tartrazine Counterstain*****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection  
Material : Protective gloves

Remarks : The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. This recommendation is only valid for the product mentioned in the safety data sheet and provided by us and for the application specified by us. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

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

Skin and body protection : impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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Hygiene measures : When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES*****Mucicarmine Stain***

Appearance : liquid  
Colour : red, opaque  
pH : 3.5 - 4.1  
Flash point :  
does not flash  
Density : 1.0033 g/cm<sup>3</sup>  
Solubility(ies)  
Water solubility : completely miscible

***Hematoxylin A***

Appearance : liquid  
Colour : yellow-orange  
Odour : alcohol-like  
pH : 5 - 7  
Boiling point/boiling range : 78 °C  
Flash point : ca. 12.5 °C  
Flammability (solid, gas) : Sustains combustion  
Density : 0.793 g/cm<sup>3</sup>  
Solubility(ies)  
Water solubility : completely miscible  
Auto-ignition temperature : No data available  
Thermal decomposition : No data available  
Oxidizing properties : The substance or mixture is not classified as oxidizing.

***Hematoxylin B***

Appearance : liquid  
pH : 1.65 - 2.0  
Flash point :  
does not flash



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Density : 1.01 g/cm<sup>3</sup>  
Solubility(ies)  
Water solubility : completely miscible

***Tartrazine Counterstain***

Appearance : liquid  
Colour : yellow  
Odour : slight, vinegar-like  
pH : acidic  
Melting point/range : No data available  
Boiling point/boiling range : No data available  
Flash point :  
does not flash  
Flammability (solid, gas) : The product is not flammable.  
  
Solubility(ies)  
Water solubility : completely miscible  
Thermal decomposition : Hazardous decomposition products formed under fire conditions.  
Oxidizing properties : The substance or mixture is not classified as oxidizing.

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No dangerous reaction known under conditions of normal use.  
Chemical stability : Stable under normal conditions.  
Possibility of hazardous reactions : Reacts with the following substances:  
Acids  
Bases  
Oxidizing agents  
Amines  
Alcohol  
Alkali metals  
Metals  
  
No decomposition if stored and applied as directed.  
  
Vapours may form explosive mixture with air.  
  
Conditions to avoid : Heat, flames and sparks.  
Incompatible materials : Combustible material  
Oxidizing agents  
Acids and bases

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	Metals
	Amines
	Alcohol
	Alkali metals
Hazardous decomposition products	: Carbon oxides
	Nitrogen oxides (NOx)
	Sulphur oxides
	Hydrogen chloride gas

**SECTION 11. TOXICOLOGICAL INFORMATION*****Mucicarmine Stain*****Acute toxicity****Product:**

Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg
	Method: Calculation method

**Components:****aluminium chloride:**

Acute oral toxicity	: LD50 Oral rat: 3,450 mg/kg
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LD50 Oral mouse: 1,130 mg/kg

Acute dermal toxicity	: LD50 Dermal rabbit: > 2,000 mg/kg
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**Skin corrosion/irritation****Product:**

Remarks: May cause skin irritation in susceptible persons.

**Components:****aluminium chloride:**

Result: Causes burns.

Remarks: Extremely corrosive and destructive to tissue.

**Serious eye damage/eye irritation****Product:**

Remarks: May cause irreversible eye damage.

**Components:****aluminium chloride:**

Remarks: May cause irreversible eye damage.

**Respiratory or skin sensitisation**

No data available

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**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**STOT - single exposure****Components:****aluminium chloride:**

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

**STOT - repeated exposure****Components:****aluminium chloride:**

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

**Aspiration toxicity**

No data available

***Hematoxylin A*****Acute toxicity****Product:**

Acute oral toxicity : Acute toxicity estimate : 3,407 mg/kg  
Method: Calculation method

**Components:****ethanol:**

Acute oral toxicity : LD50 rat: 7,000 mg/kg

LD50 mouse: 3,450 mg/kg

Acute inhalation toxicity : LC50 rat: 20000 ppm  
Exposure time: 10 h

LC50 mouse: 39 g/m<sup>3</sup>  
Exposure time: 4 h

**methanol:**

Acute oral toxicity : LD50 Oral mouse: 7,300 mg/kg

LD50 Oral rat: 5,600 mg/kg

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Acute inhalation toxicity	: LC50 rat: 85.26 mg/l Exposure time: 4 h
	LC50 rat: 64000 ppm Exposure time: 4 h
Acute dermal toxicity	: LD50 Dermal rabbit: 15,800 mg/kg
<b>propan-2-ol:</b>	
Acute oral toxicity	: LD50 Oral rat: 4,570 mg/kg
	LD50 Oral mouse: 3,600 mg/kg
	LD50 Oral rabbit: 6,410 mg/kg
Acute inhalation toxicity	: LC50 rat: 30 mg/l, 16000 ppm Exposure time: 4 h
	LC50 mouse: 53 mg/l
Acute dermal toxicity	: LD50 Dermal rabbit: 13,400 mg/kg
<b>haematoxylin:</b>	
Acute oral toxicity	: LD50 Oral rat: 400 mg/kg

**Skin corrosion/irritation****Product:**

Remarks: May cause skin irritation and/or dermatitis.

**Components:****methanol:**

Remarks: The product may be absorbed through the skin., May irritate skin.

**propan-2-ol:**

Remarks: May cause skin irritation in susceptible persons.

**haematoxylin:**

Result: Irritating to skin.

Remarks: May cause skin irritation in susceptible persons.

**Serious eye damage/eye irritation****Product:**

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

**Components:****methanol:**

Remarks: Contact with eyes may cause irritation.

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**propan-2-ol:**

Result: Irritating to eyes.

Remarks: May cause irreversible eye damage.

**haematoxylin:**

Result: Irritating to eyes.

Remarks: May cause irreversible eye damage.

**Respiratory or skin sensitisation****Components:****methanol:**

Species: guinea pig

Result: Did not cause sensitisation on laboratory animals.

**Germ cell mutagenicity****Components:****methanol:**

Genotoxicity in vitro : Type: Ames test

Result: negative

Genotoxicity in vivo : Result: negative

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**STOT - single exposure****Components:****propan-2-ol:**

Assessment: May cause drowsiness or dizziness.

**haematoxylin:**

Exposure routes: Inhalation

Assessment: May cause respiratory irritation.

**STOT - repeated exposure****Components:****methanol:**

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

**propan-2-ol:**

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

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**haematoxylin:**

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

**Aspiration toxicity****Components:****methanol:**

No aspiration toxicity classification

**haematoxylin:**

No data available

**Further information****Product:**

Remarks: Solvents may degrease the skin.

***Hematoxylin B*****Acute toxicity****Product:**

Acute oral toxicity

: Acute toxicity estimate : > 5,000 mg/kg  
Method: Calculation method

**Components:****Iron(III)-chloride hexahydrate:**

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

**Skin corrosion/irritation****Product:**

Remarks: Extremely corrosive and destructive to tissue.

**Components:****Iron(III)-chloride hexahydrate:**

Species: rabbit

Result: Irritating to skin.

Remarks: May cause skin irritation in susceptible persons.

**Serious eye damage/eye irritation****Product:**

Remarks: May cause irreversible eye damage.

**Components:****Iron(III)-chloride hexahydrate:**

Species: rabbit

Result: Risk of serious damage to eyes.

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Remarks: May cause irreversible eye damage.

**Respiratory or skin sensitisation**

No data available

**Germ cell mutagenicity****Components:****Iron(III)-chloride hexahydrate:**Germ cell mutagenicity- : Not mutagenic in Ames Test.  
Assessment**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**STOT - single exposure****Components:****Iron(III)-chloride hexahydrate:**

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

**STOT - repeated exposure****Components:****Iron(III)-chloride hexahydrate:**

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

**Aspiration toxicity****Components:****Iron(III)-chloride hexahydrate:**

No data available

***Tartrazine Counterstain*****Acute toxicity****Product:**Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg  
Method: Calculation method**Components:****trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate:**

Acute oral toxicity : LD50 Oral rat: 12,750 mg/kg

**Skin corrosion/irritation****Components:****trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate:**

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Remarks: May cause skin irritation and/or dermatitis.

**Serious eye damage/eye irritation****Components:****trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate:**

Remarks: Product dust may be irritating to eyes, skin and respiratory system.

**Respiratory or skin sensitisation****Components:****trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate:**

Classification: May cause sensitisation by skin contact.

Remarks: Causes sensitisation.

Classification: May cause sensitisation by inhalation.

Remarks: Causes sensitisation.

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**STOT - single exposure****Components:****trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate:**

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

**STOT - repeated exposure****Components:****trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate:**

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

**Aspiration toxicity****Components:****trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate:**

No data available

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**SECTION 12. ECOLOGICAL INFORMATION*****Mucicarmine Stain*****Ecotoxicity**



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**Components:****aluminium chloride :**

Toxicity to fish : LC50 (Gambusia affinis (Mosquito fish)): 27.1 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 27.3 mg/l  
aquatic invertebrates Exposure time: 48 h

**Ecotoxicology Assessment**

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

Other organisms relevant to : No data available  
the environment

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

Regulation

40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks

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

***Hematoxylin A*****Ecotoxicity****Product:****Ecotoxicology Assessment**

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

Other organisms relevant to : No data available  
the environment

**Components:****ethanol :**

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 8,000 mg/l  
Exposure time: 48 h

LC50 (Oncorhynchus mykiss (rainbow trout)): 7,100 mg/l  
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 5,400 mg/l  
aquatic invertebrates Exposure time: 48 h

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Toxicity to algae : EC0 (*Scenedesmus quadricauda* (Green algae)): 5,000 mg/l  
Exposure time: 7 d

Toxicity to bacteria : EC0 (*Pseudomonas putida*): 6,500 mg/l  
Exposure time: 16 h

### Ecotoxicology Assessment

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

Other organisms relevant to the environment : No data available

### methanol :

Toxicity to fish : LC50 (*Lepomis macrochirus* (Bluegill sunfish)): 15,400 mg/l  
Exposure time: 96 h

LC50 (*Oncorhynchus mykiss* (rainbow trout)): 8,000 mg/l  
Exposure time: 48 h

LC50 (*Leuciscus idus* (Golden orfe)): > 10,000 mg/l

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): > 10,000 mg/l  
Exposure time: 48 h

Toxicity to algae : EC0 (*Scenedesmus quadricauda* (Green algae)): 8,000 mg/l  
Exposure time: 7 d

Toxicity to bacteria : (Bacteria): 6,600 mg/l  
Exposure time: 16 h

### Ecotoxicology Assessment

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

Other organisms relevant to the environment : No data available

### propan-2-ol :

Toxicity to fish : LC0 (*Oncorhynchus mykiss* (rainbow trout)): 10,000 mg/l  
Method: OECD Test Guideline 203

LC50 (*Oncorhynchus mykiss* (rainbow trout)): 12,250 mg/l  
Method: OECD Test Guideline 203

LC100 (*Oncorhynchus mykiss* (rainbow trout)): 15,000 mg/l  
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 9,500 mg/l  
Exposure time: 24 h

Toxicity to algae : EC0 (*Scenedesmus quadricauda* (Green algae)): 1,800 mg/l  
Exposure time: 168 h  
Method: OECD Test Guideline 201

Toxicity to bacteria : EC0 (*Pseudomonas putida*): 1,050 mg/l  
Exposure time: 16 h

### Ecotoxicology Assessment

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

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Other organisms relevant to the environment : No data available

**haematoxylin :**

Ecotoxicology Assessment

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

Other organisms relevant to the environment : No data available

**Persistence and degradability****Components:****methanol :**

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

Biochemical Oxygen Demand (BOD) : Biochemical oxygen demand  
600 - 1,120 mg/g  
Incubation time: 5 d

Chemical Oxygen Demand (COD) : 1,420 mg/g  
ThBOD : 1,500 mg/g  
BOD/ThBOD : BOD/ThBOD: 76 %

**propan-2-ol :**

Biodegradability : Biodegradation: 99 %  
Exposure time: 11 d  
Method: OECD Test Guideline 302

Biodegradation: 57 %  
Exposure time: 5 d  
Method: OECD Test Guideline 302

**Bioaccumulative potential****Components:****methanol :**

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: -0.7

**propan-2-ol :**

Partition coefficient: n-octanol/water : log Pow: 0.05

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

Regulation

40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

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## Remarks

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

***Hematoxylin B*****Ecotoxicity****Components:****Iron(III)-chloride hexahydrate :**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 22 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 9.6 mg/l  
aquatic invertebrates Exposure time: 48 h

## Ecotoxicology Assessment

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

Other organisms relevant to : No data available  
the environment

**Persistence and degradability**

No data available

**Bioaccumulative potential****Components:****Iron(III)-chloride hexahydrate :**

Partition coefficient: n- : log Pow: -4 (24 °C)  
octanol/water Method: OECD Test Guideline 107

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**

## Regulation

40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

## Remarks

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

Additional ecological : An environmental hazard cannot be excluded in the event of  
information unprofessional handling or disposal., Harmful to aquatic life with long lasting effects.

***Tartrazine Counterstain*****Ecotoxicity****Product:**

## Ecotoxicology Assessment

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

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Other organisms relevant to the environment : No data available

**Components:****trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate :**

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 5,706.55 mg/l  
Exposure time: 48 h

**Ecotoxicology Assessment**

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

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

Other organisms relevant to the environment : No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Other adverse effects****Product:**

Regulation	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

**Components:****trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate :**

Adsorbed organic bound halogens (AOX) : Remarks: not applicable

Additional ecological information : No data available

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.

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Do not re-use empty containers.  
Do not burn, or use a cutting torch on, the empty drum.

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**SECTION 14. TRANSPORT INFORMATION****International regulation****IATA-DGR**

UN/ID No. : 3316  
Proper shipping name :  
Class : 9  
Packing group : II  
Labels : 9  
Packing instruction (cargo aircraft) : 960  
Packing instruction (passenger aircraft) : 960

**IMDG-Code**

UN number : 3316  
Proper shipping name :  
Class : 9  
Packing group : II  
Labels : 9  
EmS Code : , S-P  
Marine pollutant : no

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

Not applicable for product as supplied.

**National Regulations****49 CFR**

UN/ID/NA number : 3316  
Proper shipping name : Chemical kits  
Class : 9  
Packing group : II  
Labels : 9  
ERG Code : 171  
Marine pollutant : no

**Special precautions for user**

Remarks : No data available

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**SECTION 15. REGULATORY INFORMATION*****Mucicarmine Stain***

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**OSHA Hazards** : Corrosive to skin**WHMIS Classification** : E: Corrosive Material**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Aluminiumchloride	7446-70-0	100	5000

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

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

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

**SARA 313** : SARA 313: 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.

**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

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

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

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

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

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**US State Regulations****Massachusetts Right To Know**

aluminium chloride 7446-70-0 1 - 5 %

**Pennsylvania Right To Know**

water 7732-18-5 90 - 100 %  
aluminium chloride 7446-70-0 1 - 5 %

**New Jersey Right To Know**

water 7732-18-5 90 - 100 %  
aluminium chloride 7446-70-0 1 - 5 %  
Carmine 1390-65-4 1 - 5 %

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

**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

**Hematoxylin A**

**OSHA Hazards** : Flammable liquid, Carcinogen, Toxic by ingestion, Moderate skin irritant, Moderate eye irritant, Moderate respiratory irritant

**WHMIS Classification** : B2: Flammable liquid  
Toxic Material Causing Immediate and Serious Toxic Effects  
Very Toxic Material Causing Other Toxic Effects  
Toxic Material Causing Other Toxic Effects

**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Methanol	67-56-1	5000	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

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

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

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

methanol	67-56-1	4.94 %
propan-2-ol	67-63-0	4.94 %

**Clean Air Act**

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

methanol	67-56-1	4.94 %
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This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

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

ethanol	64-17-5	88.92 %
methanol	67-56-1	4.94 %
propan-2-ol	67-63-0	4.94 %

**Clean Water Act**

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

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



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This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**US State Regulations****Massachusetts Right To Know**

ethanol	64-17-5	70 - 90 %
methanol	67-56-1	1 - 5 %
propan-2-ol	67-63-0	1 - 5 %

**Pennsylvania Right To Know**

ethanol	64-17-5	70 - 90 %
methanol	67-56-1	1 - 5 %
propan-2-ol	67-63-0	1 - 5 %

**New Jersey Right To Know**

ethanol	64-17-5	70 - 90 %
methanol	67-56-1	1 - 5 %
propan-2-ol	67-63-0	1 - 5 %
haematoxylin	517-28-2	1 - 5 %

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

**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

***Hematoxylin B***

**OSHA Hazards** : Toxic by ingestion, Moderate skin irritant, Severe eye irritant

**WHMIS Classification** : D1B: Toxic Material Causing Immediate and Serious Toxic Effects  
Corrosive Material

**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Iron(III)-chloride hexahydrate	10025-77-1	1000	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

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

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

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**SARA 313** : SARA 313: 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.

**Clean Air Act**

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

hydrogen chloride	7647-01-0	0.38 %
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The following chemical(s) are listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F):

hydrogen chloride	7647-01-0	0.38 %
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This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Iron(III)-chloride hexahydrate	10025-77-1	1.16 %
hydrogen chloride	7647-01-0	0.38 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Iron(III)-chloride hexahydrate	10025-77-1	1.16 %
hydrogen chloride	7647-01-0	0.38 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**US State Regulations****Massachusetts Right To Know**

Iron(III)-chloride hexahydrate	10025-77-1	1 - 5 %
hydrogen chloride	7647-01-0	0.1 - 1 %

**Pennsylvania Right To Know**

water	7732-18-5	90 - 100 %
Iron(III)-chloride hexahydrate	10025-77-1	1 - 5 %
hydrogen chloride	7647-01-0	0.1 - 1 %

**New Jersey Right To Know**

water	7732-18-5	90 - 100 %
Iron(III)-chloride hexahydrate	10025-77-1	1 - 5 %

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

**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

**Tartrazine Counterstain**

**OSHA Hazards** : No OSHA Hazards

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**WHMIS Classification** : D2A: Very Toxic Material Causing Other Toxic Effects**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Acetic acid	64-19-7	5000	*

\*: Calculated RQ exceeds reasonably attainable upper limit.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

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

**SARA 302** : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.**SARA 313** : SARA 313: 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.**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

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

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

acetic acid	64-19-7	0.25 %
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**Clean Water Act**

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

acetic acid	64-19-7	0.25 %
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The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

acetic acid	64-19-7	0.25 %
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**US State Regulations****Massachusetts Right To Know**

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

**Pennsylvania Right To Know**

water	7732-18-5	90 - 100 %
acetic acid	64-19-7	0.1 - 1 %

**New Jersey Right To Know**

water	7732-18-5	90 - 100 %
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### California Prop 65

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

### Inventories

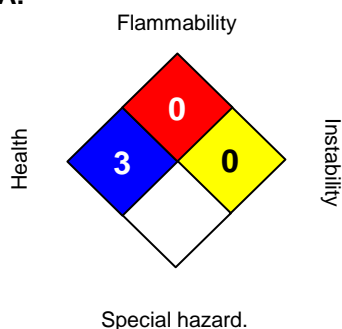
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

## SECTION 16. OTHER INFORMATION

### Further information

#### *Mucicarmine Stain*

##### NFPA:



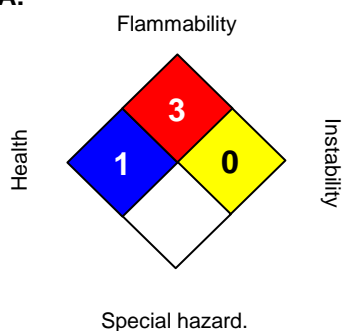
##### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

#### *Hematoxylin A*

##### NFPA:



##### HMIS III:

HEALTH	2*
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

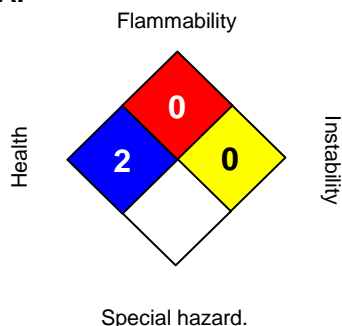
#### *Hematoxylin B*

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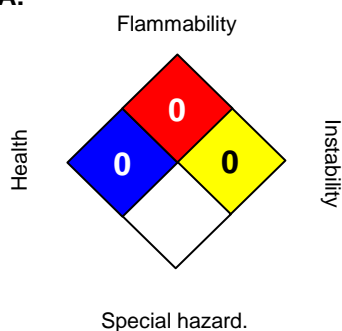
Revision Date 05-26-2014

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**NFPA:****HMIS III:**

<b>HEALTH</b>	<b>2</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

***Tartrazine Counterstain*****NFPA:****HMIS III:**

<b>HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

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