

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

#### **SECTION 1: Identification**

1.1. Identification

Product form : Mixture

Product name : Hematology Reagent A - Buffer (pH 6.8)

Product code : SS-071A, or SS-171A diluted with water, or SS-171A-EU diluted with water

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

Use of the substance/mixture : Staining reagent
Use of the substance/mixture : Laboratory chemical

1.3. Details of the supplier of the safety data sheet

ELITechGroup Inc. 370 West 1700 South Logan, UT 84321 - USA

T+1 (435) 752-6011 - F+1 (435) 752-4127

qara\_ebs@elitechgroup.com - www.elitechgroup.com

1.4. Emergency telephone number

Emergency number : Contact your distributor or poison control center in your country.

InfoTrac Emergency Response: Calls within the USA, phone: 1-800-535-5053. Calls outside the USA,

phone: +1 352-323-3500 (call collect)

Customer ID: #90104 (NOTE: this number is required when a customer calls into either phone number

above).

## SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

## **GHS US classification**

Not classified

## 2.2. Label elements

## **GHS US labeling**

No labeling applicable

#### 2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

## 2.4. Unknown acute toxicity (GHS US)

Not applicable

## **SECTION 3: Composition/Information on ingredients**

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

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Name	Product identifier	%	GHS US classification
formaldehyde	(CAS-No.) 50-00-0	< 0.1	Flam. Gas 1, H220 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Inhalation:gas), H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1A, H350
methanol	(CAS-No.) 67-56-1	< 0.1	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370

Full text of H-phrases: see section 16

#### **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show

the label where possible). IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh

air. Allow the victim to rest.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation

or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

Rinse eyes with water as a precaution.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison

center/doctor/physician if you feel unwell.

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation : May cause an allergic skin reaction.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

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

Treat symptomatically.

#### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

## 5.2. Special hazards arising from the substance or mixture

Fire hazard : Not classified as flammable.

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

## 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.

Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not

attempt to take action without suitable protective equipment. Self-contained breathing apparatus.

Complete protective clothing

## **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel. Only qualified personnel equipped with

suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapors/spray.

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## 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper

protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Notify authorities if product enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or

diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Notify

authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

#### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Wash hands and

other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid contact

with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

not be allowed out of the workplace. Wash contaminated clothing before reuse.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Separate working clothes from town clothes. Launder separately. Contaminated work clothing should

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Store in a well-ventilated place. Keep cool.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

## **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

formaldehyde (50-00-0)		
ACGIH	ACGIH TWA (ppm)	0.1 ppm
ACGIH	ACGIH STEL (ppm)	0.3 ppm
ACGIH	Remark (ACGIH)	URT & eye irr

methanol (67-56-1)		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	250 ppm
ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea
OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	200 ppm

## 8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Personal protective equipment : Avoid all unnecessary exposure.

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Hand protection : Wear protective gloves. Suitable gloves should be tested to EN 374. The glove material has to be

impermeable and resistant to the product/the substance/the preparation. As the product is a preparation of several substances, the resistance and penetration time/breakthrough time of the glove material cannot be calculated/observed in advance and, therefore, has to be checked prior to the application. The following are recommended: materials - natural latex or nitrile; thickness - 4 to 6 mils

(0.1 mm - 0.15 mm); minimum breakthrough time - 60 minutes.

Eye protection : Chemical goggles or safety glasses. Safety glasses.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Wear appropriate mask. Wear respiratory protection.

Environmental exposure controls : Avoid release to the environment.

Other information : Do not eat, drink or smoke during use.

#### **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear, colorless liquid

Color : Colorless
Odor : Characteristic
Odor threshold : No data available

pH : 6.8

Melting point : Not applicable
Freezing point : No data available

Boiling point :  $> 100\,^{\circ}\text{C}$  Flash point :  $> 90\,^{\circ}\text{C}$ 

Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : No data available **Explosion limits** : No data available **Explosive properties** No data available Oxidizing properties : No data available Vapor pressure : No data available : No data available Relative density Relative vapor density at 20 °C : No data available

Solubility : Water: No data available

Partition coefficient n-octanol/water (Log Pow) : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

#### 9.2. Other information

No additional information available

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

## 10.2. Chemical stability

Not established.

#### 10.3. Possibility of hazardous reactions

Not established.

## 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

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#### 10.5. Incompatible materials

Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

formaldehyde (50-00-0)	
LD50 oral rat	800 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, 2% aqueous solution, Oral, 14 day(s))
ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h
methanol (67-56-1)	

methanol (67-56-1)	
LD50 oral rat	1187 – 2769 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, Aqueous solution, Oral, 7 day(s))
LC50 Inhalation - Rat	128 mg/l air (BASF test, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))
ATE US (oral)	1187 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h

Skin corrosion/irritation : Not classified

pH: 6.8

Serious eye damage/irritation : Not classified

pH: 6.8

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified

Based on available data, the classification criteria are not met

Carcinogenicity : Not classified

formaldehyde (50-00-0)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

Reproductive toxicity : Not classified

Based on available data, the classification criteria are not met

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and

symptoms

: Based on available data, the classification criteria are not met.

Symptoms/effects after inhalation : May cause an allergic skin reaction.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

## **SECTION 12: Ecological information**

## 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

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formaldehyde (50-00-0)	
LC50 fish 1	6.7 mg/l (96 h, Morone saxatilis, Static system, Salt water, Experimental value, Lethal)
EC50 Daphnia 1	5.8 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia pulex, Static system, Fresh water, Experimental value, Locomotor effect)
LC50 fish 2	62 (62 – 109) mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
ErC50 (algae)	4.89 – 6.61 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
NOEC chronic fish	≥ 48 mg/l Test organisms (species): Oryzias latipes Duration: '28 d'
methanol (67-56-1)	
LC50 fish 1	15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 Daphnia 1	18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect)
NOEC (chronic)	208 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

#### 12.2. Persistence and degradability

Hematology Reagent A - Buffer (pH 6.8)		
Persistence and degradability	Not established.	
formaldehyde (50-00-0)		
Persistence and degradability	Readily biodegradable in water.	
Biochemical oxygen demand (BOD)	0.64 g O <sub>2</sub> /g substance	
Chemical oxygen demand (COD)	1.06 g O <sub>2</sub> /g substance	
ThOD	1.068 g O₂/g substance	
methanol (67-56-1)		
Persistence and degradability	Readily biodegradable in the soil. Readily biodegradable in water.	
Biochemical oxygen demand (BOD)	0.6 – 1.12 g O <sub>2</sub> /g substance	
Chemical oxygen demand (COD)	1.42 g O <sub>2</sub> /g substance	
ThOD	1.5 g O₂/g substance	

## 12.3. Bioaccumulative potential

Hematology Reagent A - Buffer (pH 6.8)		
Bioaccumulative potential	Not established.	
formaldehyde (50-00-0)		
BCF fish 1	< 1 (1 h, Flow-through system, Salt water, Weight of evidence)	
Partition coefficient n-octanol/water (Log Pow)	0.35 (Calculated, KOWWIN, 25 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
methanol (67-56-1)		
BCF fish 1	1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value)	
Partition coefficient n-octanol/water (Log Pow)	-0.77 (Experimental value)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	•

#### 12.4. Mobility in soil

formaldehyde (50-00-0)	
Surface tension	73 mN/m (20 °C, Aqueous solution, 7.5 g/l)
Ecology - soil	Not applicable (gas). Toxic to flora.
methanol (67-56-1)	
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Koc)	-0.89 – -0.21 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

## 12.5. Other adverse effects

Other information : Avoid release to the environment.

## **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

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Ecology - waste materials : Avoid release to the environment.

## **SECTION 14: Transport information**

#### **Department of Transportation (DOT)**

In accordance with DOT

Not regulated for transport

## **Transportation of Dangerous Goods**

No additional information available

#### Transport by sea

No additional information available

#### Air transport

No additional information available

## **SECTION 15: Regulatory information**

## 15.1. US Federal regulations

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Hematology Reagent A - Buffer (pH 6.8)		
Not listed on the United States TSCA (Toxic Substances Cor	ntrol Act) inventory	
formaldehyde (50-00-0)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313		
CERCLA RQ	100 lb	
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb	
SARA Section 313 - Emission Reporting	1%	
methanol (67-56-1)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313		
CERCLA RQ	5000 lb	
SARA Section 313 - Emission Reporting	1%	

## 15.2. International regulations

#### CANADA

formaldehyde (50-00-0)
Listed on the Canadian DSL (Domestic Substances List)
methanol (67-56-1)
Listed on the Canadian DSL (Domestic Substances List)

#### **EU-Regulations**

No additional information available

### **National regulations**

formaldehyde (50-00-0)
Listed on IARC (International Agency for Research on Cancer) Listed as carcinogen on NTP (National Toxicology Program) Listed on EPA Hazardous Air Pollutant (HAPS)
methanol (67-56-1)

## 15.3. US State regulations

Listed on EPA Hazardous Air Pollutant (HAPS)

This product can expose you to formaldehyde, which is known to the State of California to cause cancer, and methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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formaldehyde (50-00-0)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	
Yes	No	No	No	40 μg/day	
methanol (67-56-1)					
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)	
No	Yes	No	No	47000 μg/day	
U.S California - Proposition 65 - Other information		NSRL: 23,000 µg/day (oral); 47,000 µg/day (inhalation)			

## formaldehyde (50-00-0)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List
- U.S. Pennsylvania RTK (Right to Know) List

#### methanol (67-56-1)

- U.S. Massachusetts Right To Know List
- U.S. New Jersey Right to Know Hazardous Substance List

## **SECTION 16: Other information**

Other information : None.

#### Full text of H-phrases:

t of 11-philases.				
H220	Extremely flammable gas			
H225	Highly flammable liquid and vapor			
H301	Toxic if swallowed			
H302	Harmful if swallowed			
H311	Toxic in contact with skin			
H314	Causes severe skin burns and eye damage			
H317	May cause an allergic skin reaction			
H331	Toxic if inhaled			
H341	Suspected of causing genetic defects			
H350	May cause cancer			
H370	Causes damage to organs			

SDS US Custom - EBS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Reason For Change: updated to latest GHS format and classifications to meet compliance. Added Prop 65 information to Section 15.