



49026 Milmont Drive, Fremont, CA 94538  
Tel : +1 (800) 421-4149, Fax: +1 (510) 824-1490,  
support@biogenex.com

## Material Safety Data Sheet

Doc#: 931-HK725 Rev. A  
Release Date: 14-May, 2013

### Product Name: Mucicarmine Stain Kit

Component	Page
Scotts Solution	2
Weigert's Iron Hematoxylin A	7
Weigert's Iron Hematoxylin B	11
Mucicarmine Solution	16
Tartrazine Solution	21
Acid alcohol	26

49026 Milmont Drive, Fremont, CA 94538  
 Tel : +1 (800) 421-4149, Fax: +1 (510) 824-1490,  
 support@biogenex.com

**Material Safety Data Sheet****1. CHEMICAL IDENTIFICATION/COMPANY**

Product Name: Scotts Solution Catalog No.: HK725-14X  
 Manufacturer: BioGenex Laboratories, Inc.  
 49026 Milmont Drive, Fremont, CA 94538, USA  
 Information: Tel: +1 (800) 421-4149 Fax: +1 (510) 824-1490

Emergency Contact: BioGenex: +1 (800) 421-4149  
 Chemtrec Assistance: (800) 424-9300 (U.S. only)

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Part No.	Description of Component	Formula
HK725	Scotts Solution	Mixture

**3. HAZARDS IDENTIFICATION**

Part No	Chemical Name	Synonyms	CAS No	Percent	Einecs#
HK725	Potassium bicarbonate	Potassium hydrogen carbonate	298-14-6	~2	206-059-0
	Magnesium sulphate	Sulphuric acid magnesium salt; Arrosalt 2327	7487-88-9	~20	231-298-2
	Water	Caustic soda liquid; Aquafina; Distilled water; Hydrogen oxide(H <sub>2</sub> O); UltrexII Ultrapure	7732-18-5	~80	231-791-2

**EXPOSURE LIMITS**

CAS No.	OSHA PEL	ACGIH TLV	NIOSH	OTHER
298-14-6	NDA	NDA	NDA	NDA
7487-88-9	NDA	NDA	NDA	NDA
7732-18-5	NDA	NDA	NDA	NDA

**4. FIRST AID MEASURES****INHALATION**

Move person to fresh air. Seek medical attention if symptoms worsen.

**INGESTION**

Seek immediate medical attention.

**SKIN CONTACT**

Remove contaminated clothing and shoes. Wash the affected area with large with soap and water. Seek medical attention

**EYE CONTACT**

Check for and remove contact lenses. Wash with large amounts of water. Seek medical attention.

**5. FIRE-FIGHTING MEASURES****EXTINGUISHING MEDIA**

Extinguish fire using water spray, carbon dioxide, chemical foam or dry chemical.

**SPECIAL FIRE FIGHTING PROCEDURES**

Self-contained breathing apparatus with a full face piece operated in a pressure demand or other positive pressure mode.

**UNUSUAL FIRE & EXPLOSION HAZARDS**

N/A

**SPECIFIC HAZARDS**

May produce metallic oxides under fire conditions.

**PROTECTIVE MEASURES IN FIRE**

Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

---

**6. ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS**

Personal protective equipment and clothing is recommended during all cleanup procedures. Eliminate all ignition sources, stop or control leak.

**ENVIRONMENTAL PRECAUTIONS**

Check with local and State regulations.

**SPILL CLEAN UP METHODS**

Wipe up or absorb spill using inert absorbent and place in a suitable waste container for disposal.

---

**7. HANDLING AND STORAGE****USAGE PRECAUTIONS**

Wash thoroughly after handling.

**STORAGE PRECAUTIONS**

Keep material away from heat, flame, ignition sources and reactive materials.

---

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****ENGINEERING MEASURES**

Use of chemical fume hood. Provide local exhaust ventilation to keep the airborne concentrations of vapors below their respective threshold limit values. Ensure that eyewash stations and safety showers are local to the workstation.

**RESPIRATORY EQUIPMENT**

NIOSH/MSHA approved respirator when ventilation is inadequate.

**HAND PROTECTION**

Use chemically resistant gloves (e.g. nitrile)

**EYE PROTECTION**

Splash-proof chemical safety goggles or face shield.

**HYGIENE MEASURES**

Wash at the end of each work shift and before eating, smoking and using the toilet.

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Liquid
COLOR	Green
ODOR	Mild odor

**10. STABILITY AND REACTIVITY****STABILITY**

Stable under normal temperatures and pressures.

**CONDITIONS TO AVOID**

Incompatible materials, excess heat.

**HAZARDOUS POLYMERISATION**

Will not occur.

**MATERIALS TO AVOID**

Strong oxidizing agents

**HAZARDOUS DECOMPOSITION PRODUCTS**

NDA

**11. TOXICOLOGICAL INFORMATION****INHALATION**

May irritate respiratory tract.

**INGESTION**

May irritate gastrointestinal tract.

**SKIN CONTACT**

May irritate skin.

**EYE CONTACT**

May cause irritation and redness.

**TARGET ORGANS**

NDA

TOXICITY DATA			CARCINOGENICITY					
CAS#	RTECS	LD50	ACGIH	IARC	NIOSH	NTP	OSHA	Other
298-14-6	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA
7487-88-9	OM4500000	Rat subcutaneous 1200 mg/kg	NDA	NDA	NDA	NDA	NDA	NDA
7732-18-5	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA

Only selected Registry of Toxic Effects of Chemical substances (RTECS) data is presented here. Consult the actual entry in RTECS for complete information.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**  
 NDA

**Mobility**  
 NDA

**13. DISPOSAL CONSIDERATIONS**

Dispose of in accordance with local, state and federal laws.

**14. TRANSPORT INFORMATION**

US DOT: No information available  
 IMO: No information available.  
 IATA: No information available.  
 RID/ADR: No information available.  
 Canadian TDG: No information available.

**15. REGULATORY INFORMATION**

LABELLING



SIGNAL WORD

WARNING

CONTAINS

SODIUM BICARBONATE,

RISK PHRASES

R36/37/38 : Irritating to eyes, respiratory system and skin

SAFETY PHRASES

S22: Do not breathe dust

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 24/25: Avoid contact with skin and eyes

S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

EU DIRECTIVES

Dangerous Preparations Directive 1999/45/EC. Dangerous Substance Directive 67/548/EEC. Safety Data Sheets Directive (91/155/EEC, as amended by Directives 93/112/EC and 2001/58/EC)

**16. MISCELLANEOUS INFORMATION**

## REVISION COMMENTS

Compiled in accordance with 1999/45/EC (Dangerous Preparations Directive) and 28th ATP (Adaptation to Technical Progress) to 67/548/EEC (Dangerous Substances Directive).

N/A: Not Applicable

NDA: No Data Available

Each BioGenex MSDS was developed to be used only with the corresponding BioGenex product. The information above is believed to be accurate and represents the best information currently available. We make, however, NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. Users should make their own investigations to determine the suitability of the information for their particular purposes. BioGenex MSDSs are not for resale.

49026 Milmont Drive, Fremont, CA 94538  
 Tel : +1 (800) 421-4149, Fax: +1 (510) 824-1490,  
 support@biogenex.com

**Material Safety Data Sheet****1. CHEMICAL IDENTIFICATION/COMPANY**

Product Name: Weigert's Iron Hematoxylin A Catalog No.: HX912-14X

Manufacturer: BioGenex Laboratories, Inc.  
 49026 Milmont Drive, Fremont, CA 94538, USA  
 Information: Tel: +1 (800) 421-4149 Fax: +1 (510) 824-1490

Emergency Contact: BioGenex: +1 (800) 421-4149  
 Chemtrec Assistance: (800) 424-9300 (U.S. only)

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Part No.	Description of Component	Formula
HX912	Weigert's Iron Hematoxylin A	Mixture

**3. HAZARDS IDENTIFICATION**

Part No	Chemical Name	Synonyms	CAS No	Percent	Einecs#
HX912	Ethanol	Ethyl Alcohol; Ethyl Alcohol Anhydrous; Ethyl Hydrate; Ethyl Hydroxide; Fermentation Alcohol	64-17-5	>90%	200-578-6
	Hematoxylin	Benz (B) Indol (1,2-D) Pyran-3,4,6A,9,10 (6H)-Pentol,7,11B-Dihydro, Cis-(+)-; Hematoxiline; Hydroxybrazilin; Hydroxybrasilin; Natural Black I.	517-28-2	~1%	208-237-3
	Water	Aquafina; Distilled water; Hydrogen oxide(H2O); UltrexII Ultrapure	7732-18-5	<10	231-791-2

**EXPOSURE LIMITS**

CAS No.	OSHA PEL	ACGIH TLV	NIOSH	OTHER
64-17-5	1000 ppm TWA; 1900 mg/m3 TWA	1000 ppm TWA	1000 ppm TWA; 1900 mg/m3 TWA 3300 ppm IDLH	NDA
517-28-2	NDA	NDA	NDA	NDA
7732-18-5	NDA	NDA	NDA	NDA

**4. FIRST AID MEASURES****INHALATION**

Never make an unconscious person vomit or drink fluids! Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

**INGESTION**

Do not induce vomiting! Rinse mouth thoroughly. Get medical attention.

**SKIN CONTACT**

Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention if irritation persists after washing.

**EYE CONTACT**

Important! Immediately rinse with water for at least 15 minutes. Get medical attention immediately. Continue to rinse.

---

**5. FIRE-FIGHTING MEASURES****EXTINGUISHING MEDIA**

Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

**SPECIAL FIRE FIGHTING PROCEDURES**

Avoid water in straight hose stream; will scatter and spread fire.

**UNUSUAL FIRE & EXPLOSION HAZARDS**

Forms explosive mixtures with air.

**SPECIFIC HAZARDS**

In case of fire, toxic and corrosive gases may be formed. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Vapors may be ignited by a spark, a hot surface or an ember.

**PROTECTIVE MEASURES IN FIRE**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

---

**6. ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS**

Use protective gloves, goggles and suitable protective clothing.

**ENVIRONMENTAL PRECAUTIONS**

Do not discharge into drains, water courses or onto the ground. Collect and dispose of spillage as indicated in section 13.

**SPILL CLEAN UP METHODS**

Absorb in vermiculite, dry sand or earth and place into containers.

---

**7. HANDLING AND STORAGE****USAGE PRECAUTIONS**

Eliminate all sources of ignition. Avoid spilling, skin and eye contact. Avoid eating, drinking and smoking when using the product.

**STORAGE PRECAUTIONS**

Keep away from heat, sparks and open flame. Keep separate from food, feedstuffs, fertilizers and other sensitive material. Do NOT use container made of: Aluminum.

---

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****ENGINEERING MEASURES**

Provide adequate general and local exhaust ventilation.

**RESPIRATORY EQUIPMENT**

If ventilation is insufficient, suitable respiratory protection must be provided. Chemical respirator with organic vapors cartridge.

**HAND PROTECTION**

Use protective gloves

**EYE PROTECTION**

Wear approved safety goggles.

**HYGIENE MEASURES**

Wash at the end of each work shift and before eating, smoking and using the toilet.

---



**9. PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Solution
COLOR	Brown
ODOR	of solvents

**10. STABILITY AND REACTIVITY****STABILITY**

Stable under normal temperature conditions and recommended use.

**CONDITIONS TO AVOID**

Avoid heat, flames and other sources of ignition. Avoid contact with acids and oxidizing substances.

**HAZARDOUS POLYMERISATION**

Unknown.

**MATERIALS TO AVOID**

Strong oxidizing substances.

**HAZARDOUS DECOMPOSITION PRODUCTS**

Fire or high temperatures may form toxic and corrosive vapors.

**11. TOXICOLOGICAL INFORMATION****TOXICOLOGICAL INFORMATION**

No information specific to this product is available.

**INHALATION**

Vapors may irritate the respiratory system and cause coughing, asthmatic breathing and breathlessness.

**INGESTION**

May cause nausea, headache, dizziness and intoxication. Gastrointestinal symptoms, including upset stomach.

**SKIN CONTACT**

Acts as a deflating agent on skin. May cause cracking of skin, and eczema. May be absorbed through the skin. Prolonged or repeated skin contact may cause dermatitis.

**EYE CONTACT**

Risk of serious damage to eyes.

**TARGET ORGANS**

Kidneys, central nervous system, liver, cardiovascular system, eyes

TOXICITY DATA			CARCINOGENICITY					
CAS#	RTECS	LD50	ACGIH	IARC	NIOSH	NTP	OSHA	Other
64-17-5	KQ6300000	Rat ip 3.8 g/L	NDA	NDA	NDA	NDA	NDA	NDA
517-28-2	MH7875000	NDA	NDA	NDA	NDA	NDA	NDA	NDA
7732-18-5	NDA	NDA	NDA	NDA	NDA	NDA	NDAQ	

Only selected Registry of Toxic Effects of Chemical substances (RTECS) data is presented here. Consult the actual entry in RTECS for complete information.

**12. ECOLOGICAL INFORMATION****MOBILITY**

The product is soluble in water. The product contains organic solvents which will evaporate easily from all surfaces.

**13. DISPOSAL CONSIDERATIONS****GENERAL INFORMATION**

Waste is classified as special waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

**DISPOSAL METHODS**

Incinerate in suitable combustion chamber.

**14. TRANSPORT INFORMATION**

US DOT: No information available

IMO: No information available.

IATA: No information available.

RID/ADR: No information available.

Canadian TDG: No information available.

**15. REGULATORY INFORMATION****LABELING**

SIGNAL WORD

DANGER

CONTAINS

ALCOHOL

RISK PHRASES

R1: Highly flammable.

SAFETY PHRASES

S2: Keep out of the reach of children.

S7: Keep container tightly closed.

S16: Keep away from sources of ignition - No smoking.

EU DIRECTIVES

Dangerous Preparations Directive 1999/45/EC. Dangerous Substance Directive 67/548/EEC. Safety Data Sheets Directive (91/155/EEC, as amended by Directives 93/112/EC and 2001/58/EC).

**16. MISCELLANEOUS INFORMATION****REVISION COMMENTS**

Compiled in accordance with 1999/45/EC (Dangerous Preparations Directive) and 28th ATP (Adaptation to Technical Progress) to 67/548/EEC (Dangerous Substances Directive).

N/A: Not Applicable

NDA: No Data Available

Each BioGenex MSDS was developed to be used only with the corresponding BioGenex product. The information above is believed to be accurate and represents the best information currently available. We make, however, NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. Users should make their own investigations to determine the suitability of the information for their particular purposes. BioGenex MSDSs are not for resale.

49026 Milmont Drive, Fremont, CA 94538  
 Tel : +1 (800) 421-4149, Fax: +1 (510) 824-1490,  
 support@biogenex.com

**Material Safety Data Sheet****1. CHEMICAL IDENTIFICATION/COMPANY**

Product Name: Weigert's Iron Hematoxylin B Catalog No.: HX913-14X  
 Manufacturer: BioGenex Laboratories, Inc.  
 49026 Milmont Drive, Fremont, CA 94538, USA  
 Information: Tel: +1 (800) 421-4149 Fax: +1 (510) 824-1490  
 Emergency Contact: BioGenex: +1 (800) 421-4149  
 Chemtrec Assistance: (800) 424-9300 (U.S. only)

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Part No.	Description of Component	Formula
HX913	Weigert's Iron Hematoxylin B	Mixture

**3. HAZARDS IDENTIFICATION**

Part No	Chemical Name	Synonyms	CAS No	Percent	Einecs#
HX913	Hydrogen Chloride	Hydrochloric Acid; Anhydrous hydrochloric acid; Basilin; Chlorohydric acid	7647-01-0	<2	231-595-7
	Ferric Chloride	Chlorure perrique; chlorureferrique; chlorureferrique (french); chlorureperrique; FeCl <sub>3</sub> ; Ferric chloride anhydrous; ferricchloride (iron(iii)); ferricchloride (iron(iii) chloride)	7705-08-0	<2	231-729-4
	Water	Aquafina;Distilled water; Hydrogen oxide(H <sub>2</sub> O); UltrexII Ultrapure	7732-18-5	>96	231-791-2

**EXPOSURE LIMITS**

CAS No.	OSHA PEL	ACGIH TLV	NIOSH	OTHER
7647-01-0	CEIL: 7 mg/m <sup>3</sup> CEIL: 5 ppm	C: 2 ppm (3 mg/m <sup>3</sup> ) Ceiling	CEIL: 7 mg/m <sup>3</sup> CEIL: 5 ppm	NDA
10025-77-1	1 mg/m <sup>3</sup> TWA (as Fe) (listed under Iron salts (soluble)).	1 mg/m <sup>3</sup> TWA (as Fe) (listed under Iron salts (soluble)).	1 mg/m <sup>3</sup> TWA (as Fe) (listed under Iron salts (soluble)).	NDA
7732-18-5	NDA	NDA	NDA	NDA

**4. FIRST AID MEASURES****INHALATION**

Never make an unconscious person vomit or drink fluids! Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

**INGESTION**

Do not induce vomiting! Rinse mouth thoroughly. Get medical attention.

**SKIN CONTACT**

Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention if irritation persists after washing.

**EYE CONTACT**

Important! Immediately rinse with water for at least 15 minutes. Get medical attention immediately. Continue to rinse.

---

**5. FIRE-FIGHTING MEASURES****EXTINGUISHING MEDIA**

Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

**SPECIAL FIRE FIGHTING PROCEDURES**

Avoid water in straight hose stream; will scatter and spread fire.

**UNUSUAL FIRE & EXPLOSION HAZARDS**

Forms explosive mixtures with air.

**SPECIFIC HAZARDS**

In case of fire, toxic and corrosive gases may be formed. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Vapors may be ignited by a spark, a hot surface or an ember.

**PROTECTIVE MEASURES IN FIRE**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

---

**6. ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS**

Use protective gloves, goggles and suitable protective clothing.

**ENVIRONMENTAL PRECAUTIONS**

Do not discharge into drains, water courses or onto the ground. Collect and dispose of spillage as indicated in section 13.

**SPILL CLEAN UP METHODS**

Absorb in vermiculite, dry sand or earth and place into containers.

---

**7. HANDLING AND STORAGE****USAGE PRECAUTIONS**

Eliminate all sources of ignition. Avoid spilling, skin and eye contact. Avoid eating, drinking and smoking when using the product.

**STORAGE PRECAUTIONS**

Keep away from heat, sparks and open flame. Keep separate from food, feedstuffs, fertilizers and other sensitive material. Do NOT use container made of: Aluminum.

---

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****ENGINEERING MEASURES**

Provide adequate general and local exhaust ventilation.

**RESPIRATORY EQUIPMENT**

If ventilation is insufficient, suitable respiratory protection must be provided. Chemical respirator with organic vapors cartridge.

**HAND PROTECTION**

Use protective gloves

**EYE PROTECTION**

Wear approved safety goggles.



Only selected Registry of Toxic Effects of Chemical substances (RTECS) data is presented here. Consult the actual entry in RTECS for complete information

**12. ECOLOGICAL INFORMATION**

## ECOTOXICITY

No data on possible environment effects have been found.

**13. DISPOSAL CONSIDERATIONS**

## GENERAL INFORMATION

Waste is classified as special waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

**14. TRANSPORT INFORMATION**

US DOT: No information available  
 IMO: No information available.  
 IATA: No information available.  
 RID/ADR: No information available.  
 Canadian TDG: No information available.

**15. REGULATORY INFORMATION**

## LABELLING



## SIGNAL WORD

## WARNING

## CONTAINS

Hydrogen Chloride

## RISK PHRASES

R23: Toxic by inhalation  
 R35: Causes severe burns  
 R37: Irritating to respiratory system

## SAFETY PHRASES

S1/2: Keep locked up and out of the reach of children.  
 S9: Keep container in a well-ventilated place.  
 S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.  
 S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

## EU DIRECTIVES

Dangerous Preparations Directive 1999/45/EC. Dangerous Substance Directive 67/548/EEC. Safety Data Sheets Directive (91/155/EEC, as amended by Directives 93/112/EC and 2001/58/EC).

**16. MISCELLANEOUS INFORMATION**

## REVISION COMMENTS

Compiled in accordance with 1999/45/EC (Dangerous Preparations Directive) and 28th ATP (Adaptation to Technical Progress) to 67/548/EEC (Dangerous Substances Directive).

N/A: Not Applicable

NDA: No Data Available

Each BioGenex MSDS was developed to be used only with the corresponding BioGenex product. The information above is believed to be accurate and represents the best information currently available. We make, however, NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. Users should make their own investigations to determine the suitability of the information for their particular purposes. BioGenex MSDSs are not for resale.

---

49026 Milmont Drive, Fremont, CA 94538  
 Tel : +1 (800) 421-4149, Fax: +1 (510) 824-1490,  
 support@biogenex.com

**Material Safety Data Sheet****1. CHEMICAL IDENTIFICATION/COMPANY**

Product Name: Mucicarmin Solution Catalog No.: HX918-14X

Manufacturer: BioGenex Laboratories, Inc.  
 49026 Milmont Drive, Fremont, CA 94538, USA  
 Information: Tel: +1 (800) 421-4149 Fax: +1 (510) 824-1490

Emergency Contact: BioGenex: +1 (800) 421-4149  
 Chemtrec Assistance: (800) 424-9300 (U.S. only)

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Part No.	Description of Component	Formula
HX918	Mucicarmin Solution	Mixture

**3. HAZARDS IDENTIFICATION**

Part No	Chemical Name	Synonyms	CAS No	Percent	Einecs#
HX918	Carmine	Methanal, Methyl aldehyde, Methylene oxide	1390-65-4	1%	215-724-4
	Reagent alcohol	Alcohol, Cologne spirit, Ethanol, EtOH, Grain alcohol	64-17-5	~50%	200-578-6
	Aluminium Hydroxide	Hydrated Alumina, Trihydroxy Aluminium	21645-51-2	1%	244-492-7
	Anhydrous Aluminium Chloride	Aluminum trichloride, Caswell no 029	7446-70-0	0-5%	231-208-1
	Water	Aquafina; Distilled water; Hydrogen oxide(H <sub>2</sub> O); UltrexII Ultrapure	7732-18-5	~60	231-791-2

**EXPOSURE LIMITS**

CAS No.	OSHA PEL	ACGIH TLV	NIOSH	OTHER
1390-65-4	NDA	NDA	NDA	NDA
64-17-5	TWA 1000 ppm (1900 mg/m <sup>3</sup> )	1000 ppm STEL Ceiling	TWA 1000 ppm (1900 mg/m <sup>3</sup> )	NDA
21645-51-2	NDA	NDA	NDA	NDA
7446-70-0	NDA	NDA	NDA	NDA

**4. FIRST AID MEASURES****INHALATION**

Never make an unconscious person vomit or drink fluids! Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.



**INGESTION**

Do not induce vomiting! Rinse mouth thoroughly. Get medical attention.

**SKIN CONTACT**

Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention if irritation persists after washing.

**EYE CONTACT**

Important! Immediately rinse with water for at least 15 minutes. Get medical attention immediately. Continue to rinse

---

**5. FIRE-FIGHTING MEASURES****EXTINGUISHING MEDIA**

Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

**SPECIAL FIRE FIGHTING PROCEDURES**

Avoid water in straight hose stream; will scatter and spread fire.

**UNUSUAL FIRE & EXPLOSION HAZARDS**

Forms explosive mixtures with air.

**SPECIFIC HAZARDS**

In case of fire, toxic and corrosive gases may be formed. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Vapors may be ignited by a spark, a hot surface or an ember.

**PROTECTIVE MEASURES IN FIRE**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

---

**6. ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS**

Use protective gloves, goggles and suitable protective clothing.

**ENVIRONMENTAL PRECAUTIONS**

Do not discharge into drains, water courses or onto the ground. Collect and dispose of spillage as indicated in section 13.

**SPILL CLEAN UP METHODS**

Absorb in vermiculite, dry sand or earth and place into containers.

---

**7. HANDLING AND STORAGE****USAGE PRECAUTIONS**

Eliminate all sources of ignition. Avoid spilling, skin and eye contact. Avoid eating, drinking and smoking when using the product.

**STORAGE PRECAUTIONS**

Keep away from heat, sparks and open flame. Keep separate from food, feedstuffs, fertilizers and other sensitive material. Do NOT use container made of: Aluminum.

---

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****ENGINEERING MEASURES**

Provide adequate general and local exhaust ventilation.

**RESPIRATORY EQUIPMENT**

If ventilation is insufficient, suitable respiratory protection must be provided. Chemical respirator with organic vapors cartridge.

**HAND PROTECTION**

Use protective gloves

**EYE PROTECTION**

Wear approved safety goggles.

**HYGIENE MEASURES**

Wash at the end of each work shift and before eating, smoking and using the toilet.

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Solution
COLOR	Colorless
ODOR	of solvents

---

**10. STABILITY AND REACTIVITY****STABILITY**

Stable under normal temperature conditions and recommended use.

**CONDITIONS TO AVOID**

Avoid heat, flames and other sources of ignition. Avoid contact with acids and oxidizing substances.

**HAZARDOUS POLYMERISATION**

Unknown.

**MATERIALS TO AVOID**

Strong oxidizers, potassium dioxide, bromine pentafluoride, acetyl bromide, acetyl chloride, platinum, sodium.

**HAZARDOUS DECOMPOSITION PRODUCTS**

Fire or high temperatures may form toxic and corrosive vapors.

---

**11. TOXICOLOGICAL INFORMATION****TOXICOLOGICAL INFORMATION**

No information specific to this product is available.

**INHALATION**

Vapors may irritate the respiratory system and cause coughing, asthmatic breathing and breathlessness.

**INGESTION**

May cause nausea, headache, dizziness and intoxication. Gastrointestinal symptoms, including upset stomach

**SKIN CONTACT**

Acts as a deflating agent on skin. May cause cracking of skin, and eczema. May be absorbed through the skin. Prolonged or repeated skin contact may cause dermatitis.

**EYE CONTACT**

Risk of serious damage to eyes.

**TARGET ORGANS**

Kidneys, central nervous system, liver, cardiovascular system, eyes

**Material Safety Data Sheet**

TOXICITY DATA			CARCINOGENICITY					
CAS#	RTECS	LD50	ACGIH	IARC	NIOSH	NTP	OSHA	Other
1390-65-4	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA
64-17-5	LP8925000	Mouse iv 2.0 g/L	NDA	Group 1	3,300 ppm (10% LEL)	NDA	NDA	NDA
21645-51-2	BD0940000	Rat ip 1100 mg/kg bw	NDA	NDA	NDA	NDA	NDA	NDA
7446-70-0	BD0525000	770 mg/kg as aluminum for Mice	NDA	NDA	NDA	NDA	NDA	NDA

Only selected Registry of Toxic Effects of Chemical substances (RTECS) data is presented here. Consult the actual entry in RTECS for complete information.

**12. ECOLOGICAL INFORMATION****MOBILITY**

The product is soluble in water. The product contains organic solvents which will evaporate easily from all surfaces.

**13. DISPOSAL CONSIDERATIONS****GENERAL INFORMATION**

Waste is classified as special waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

**DISPOSAL METHODS**

Incinerate in suitable combustion chamber.

**14. TRANSPORT INFORMATION**

US DOT: No information available  
 IMO: No information available.  
 IATA: No information available.  
 RID/ADR: No information available.  
 Canadian TDG: No information available.

**15. REGULATORY INFORMATION****LABELING****SIGNAL WORD:****DANGER**

**CONTAINS****REAGENT ALCOHOL**

## R-phrases)

R11 Highly flammable.  
 R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
 R34 : Causes burns.  
 R36: Irritating to eyes  
 R68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

## S-phrases)

S1/2 : Keep locked up and out of the reach of children.  
 S7/8 : Keep container tightly closed and dry.  
 S16 Keep away from sources of ignition - No smoking.  
 S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice .  
 S28 : After contact with skin, wash immediately with plenty of . . . (to be specified by the manufacturer).  
 S36: Wear suitable protective clothing  
 S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
 S36/37 Wear suitable protective clothing and gloves.

**EU DIRECTIVES**

Dangerous Preparations Directive 1999/45/EC. Dangerous Substance Directive 67/548/EEC. Safety Data Sheets Directive (91/155/EEC, as amended by Directives 93/112/EC and 2001/58/EC)

**16. MISCELLANEOUS INFORMATION****REVISION COMMENTS**

Compiled in accordance with 1999/45/EC (Dangerous Preparations Directive) and 28th ATP (Adaptation to Technical Progress) to 67/548/EEC (Dangerous Substances Directive).

N/A: Not Applicable

NDA: No Data Available

Each BioGenex MSDS was developed to be used only with the corresponding BioGenex product. The information above is believed to be accurate and represents the best information currently available. We make, however, NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. Users should make their own investigations to determine the suitability of the information for their particular purposes. BioGenex MSDSs are not for resale.

49026 Milmont Drive, Fremont, CA 94538  
 Tel : +1 (800) 421-4149, Fax: +1 (510) 824-1490,  
 support@biogenex.com

# Material Safety Data Sheet

## 1. CHEMICAL IDENTIFICATION/COMPANY

Product Name: Tartrazine Solution Catalog No.: HX919-14X  
 Manufacturer: BioGenex Laboratories, Inc.  
 49026 Milmont Drive, Fremont, CA 94538, USA  
 Information: Tel: +1 (800) 421-4149 Fax: +1 (510) 824-1490  
 Emergency Contact: BioGenex: +1 (800) 421-4149  
 Chemtrec Assistance: (800) 424-9300 (U.S. only)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Part No.	Description of Component	Formula
HX919	Tartrazine Solution	Mixture

## 3. HAZARDS IDENTIFICATION

Part No	Chemical Name	Synonyms	CAS No	Percent	Einecs#
HX919	Acetic acid	Acetic acid (aqueous); Ethanoic acid; Glacial acetic acid (pure compound); Methanecarboxylic acid	64-19-7	<0.5	200-580-7
	Tartrazine	FD&C Yellow 5	1934-21-0	<0.5	217-699-5
	Water	Aquafina; Distilled water; Hydrogen oxide(H <sub>2</sub> O); UltraxII Ultrapure	7732-18-5	>90	231-791-2

### EXPOSURE LIMITS

CAS No.	OSHA PEL	ACGIH TLV	NIOSH	OTHER
64-19-7	8H TWA 10 ppm (25 mg/m <sup>3</sup> )	TLV-STEL: 37mg/m <sup>3</sup> (15 ppm) TLV-TWA: 25 mg/m <sup>3</sup> (10 ppm)	10H TWA 10 ppm; STEL 15 ppm	NDA
1934-21-0	NDA	NDA	NDA	NDA
7732-18-5	NDA	NDA	NDA	NDA

## 4. FIRST AID MEASURES

### INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

### INGESTION

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

### SKIN CONTACT

In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

**EYE CONTACT**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

---

**5. FIRE-FIGHTING MEASURES****EXTINGUISHING MEDIA**

Extinguish fire using water spray, carbon dioxide, chemical foam or dry chemical.

**SPECIAL FIRE FIGHTING PROCEDURES**

Avoid inhalation of toxic fumes. If possible, safely move container away from fire area

**UNUSUAL FIRE & EXPLOSION HAZARDS**

NDA

**SPECIFIC HAZARDS**

NDA

**PROTECTIVE MEASURES IN FIRE**

Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

---

**6. ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS**

Personal protective equipment and clothing is recommended during all cleanup procedures. Eliminate all ignition sources, stop or control leak.

**ENVIRONMENTAL PRECAUTIONS**

Check with local and State regulations.

**SPILL CLEAN UP METHODS**

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately.

---

**7. HANDLING AND STORAGE****USAGE PRECAUTIONS**

Wash thoroughly after handling.

**STORAGE PRECAUTIONS**

Keep material away from heat, flame, ignition sources and reactive materials. Store in dry and cool place.

---

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****ENGINEERING MEASURES**

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**RESPIRATORY EQUIPMENT**

NIOSH/MSHA approved respirator when ventilation is inadequate.

**HAND PROTECTION**

Use chemically resistant gloves (e.g. nitrile)

**EYE PROTECTION**

Splash-proof chemical safety goggles or face shield.

**HYGIENE MEASURES**

Wash at the end of each work shift and before eating, smoking and using the toilet.

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Liquid
COLOR	Yellow
ODOR	NDA

**10. STABILITY AND REACTIVITY****STABILITY**

Stable under normal temperatures and pressures.

**CONDITIONS TO AVOID**

Excess heat.

**HAZARDOUS POLYMERISATION**

Will not occur

**MATERIALS TO AVOID**

Strong oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS**

Carbon monoxide, carbon dioxide

**11. TOXICOLOGICAL INFORMATION****INHALATION**

May cause respiratory tract irritation.

**INGESTION**

May cause irritation of the digestive tract.

**SKIN CONTACT**

May cause skin irritation.

**EYE CONTACT**

May cause eye irritation

**TARGET ORGANS**

NDA

TOXICITY DATA			CARCINOGENICITY					
CAS#	RTECS	LD50	ACGIH	IARC	NIOSH	NTP	OSHA	Other
64-19-7	AF1225000	ORL-RAT:3g/Kg	NDA	NDA	NDA	NDA	NDA	NDA
1934-21-0	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA
7732-18-5	NDA	NDA	NDA	NDA	NDA	NDA	NDA	NDA

Only selected Registry of Toxic Effects of Chemical substances (RTECS) data is presented here. Consult the actual entry in RTECS for complete information.

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

NDA

**Mobility**  
 NDA

**13. DISPOSAL CONSIDERATIONS**

Dispose of in accordance with local, state and federal laws.

**14. TRANSPORT INFORMATION**

US DOT: No information available  
 IMO: No information available.  
 IATA: No information available.  
 RID/ADR: No information available.  
 Canadian TDG: No information available.

**15. REGULATORY INFORMATION**

## LABELING



Corrosive

## CONTAINS

ACETIC ACID

## RISK PHRASES

R10	Flammable
R35	Causes severe burns.

## SAFETY PHRASES

S (1/2)	Keep locked up and out of the reach of children
S23	Do not breathe gas/fumes/vapor/spray
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S45	In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

## EU DIRECTIVES

Dangerous Preparations Directive 1999/45/EC. Dangerous Substance Directive 67/548/EEC. Safety Data Sheets Directive (91/155/EEC, as amended by Directives 93/112/EC and 2001/58/EC)



**16. MISCELLANEOUS INFORMATION**

## REVISION COMMENTS

Compiled in accordance with 1999/45/EC (Dangerous Preparations Directive) and 28th ATP (Adaptation to Technical Progress) to 67/548/EEC (Dangerous Substances Directive).

N/A: Not Applicable

NDA: No Data Available

Each BioGenex MSDS was developed to be used only with the corresponding BioGenex product. The information above is believed to be accurate and represents the best information currently available. We make, however, NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. Users should make their own investigations to determine the suitability of the information for their particular purposes. BioGenex MSDSs are not for resale.

---

49026 Milmont Drive, Fremont, CA 94538  
 Tel : +1 (800) 421-4149, Fax: +1 (510) 824-1490,  
 support@biogenex.com

**Material Safety Data Sheet****1. CHEMICAL IDENTIFICATION/COMPANY**

Product Name: Acid alcohol Catalog No.: HX966-14X

Manufacturer: BioGenex Laboratories, Inc.  
 49026 Milmont Drive, Fremont, CA 94538, USA  
 Information: Tel: +1 (800) 421-4149 Fax: +1 (510) 824-1490

Emergency Contact: BioGenex: +1 (800) 421-4149  
 Chemtrec Assistance: (800) 424-9300 (U.S. only)

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

Part No.	Description of Component	Formula
HX966	Acid Alcohol	Mixture

**3. HAZARDS IDENTIFICATION**

Part No	Chemical Name	Synonyms	CAS No	Percent	Einces#
HX966	Ethyl Alcohol	Alcohol, Cologne spirit, Ethanol, EtOH, Grain alcohol.	64-17-5	<70	200-578-6
	Hydrochloric acid	Hydrogen sulfate; Oil of vitriol	7647-01-0	<5	231-595-7
	Water	Aquafina; Distilled water; Hydrogen oxide(H <sub>2</sub> O); Ultrex II Ultrapure	7732-18-5	<30	231-791-2

**EXPOSURE LIMITS**

CAS No.	OSHA PEL	ACGIH TLV	NIOSH	OTHER
64-17-5	1900 mg/m <sup>3</sup> TWA; 1000ppm TWA.	1000 ppm STEL	1900 mg/m <sup>3</sup> TWA; 1000ppm TWA.	NDA
7647-01-0	C 5 ppm (7 mg/m <sup>3</sup> )	2ppm STEL	C 5 ppm (7 mg/m <sup>3</sup> )	NDA

**4. FIRST AID MEASURES****INHALATION**

Never make an unconscious person vomit or drink fluids! Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

**INGESTION**

Do not induce vomiting! Rinse mouth thoroughly. Get medical attention.

**SKIN CONTACT**

Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention if irritation persists after washing.

**EYE CONTACT**

Important! Immediately rinse with water for at least 15 minutes. Get medical attention immediately. Continue to rinse

**5. FIRE-FIGHTING MEASURES****EXTINGUISHING MEDIA**

Do not extinguish fire unless flow can be stopped. Use water in flooding quantities as fog. Use foam, dry chemical, or carbon dioxide

**SPECIAL FIRE FIGHTING PROCEDURES**

In case of fire: keep drums, etc., cool by spraying with water.

**UNUSUAL FIRE & EXPLOSION HAZARDS**

Forms explosive mixtures with air.

**SPECIFIC HAZARDS**

Combustion or decomposition of material may produce hazardous and/or irritating fumes

**PROTECTIVE MEASURES IN FIRE**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**6. ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS**

Use protective gloves, goggles and suitable protective clothing.

**ENVIRONMENTAL PRECAUTIONS**

Do not discharge into drains, water courses or onto the ground. Collect and dispose of spillage as indicated in section 13.

**SPILL CLEAN UP METHODS**

Absorb in vermiculite, dry sand or earth and place into containers.

**7. HANDLING AND STORAGE****USAGE PRECAUTIONS**

Eliminate all sources of ignition. Avoid spilling, skin and eye contact. Avoid eating, drinking and smoking when using the product.

**STORAGE PRECAUTIONS**

Keep away from heat, sparks and open flame. Keep separate from food, feedstuffs, fertilizers and other sensitive material. Collect and dispose of spillage as indicated in section 13.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****ENGINEERING MEASURES**

Provide adequate general and local exhaust ventilation.

**RESPIRATORY EQUIPMENT**

If ventilation is insufficient, suitable respiratory protection must be provided. Chemical respirator with organic vapors cartridge.

**HAND PROTECTION**

Use protective gloves

**EYE PROTECTION**

Wear approved safety goggles.

**HYGIENE MEASURES**

Wash at the end of each work shift and before eating, smoking and using the toilet.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Solution
COLOR	NDA
ODOR	Alcohol

**10. STABILITY AND REACTIVITY****STABILITY**

Stable under normal temperature conditions and recommended use.

**CONDITIONS TO AVOID**

Avoid heat, flames and other sources of ignition. Avoid contact with acids and oxidizing substances.

**HAZARDOUS POLYMERISATION**

Unknown.

**MATERIALS TO AVOID**

Strong oxidizers, potassium dioxide, bromine pentafluoride, acetyl bromide, acetyl chloride, platinum, sodium, Hydroxides, amines, alkalis, copper, brass, zinc

**HAZARDOUS DECOMPOSITION PRODUCTS**

Fire or high temperatures may form toxic and corrosive vapors.

**11. TOXICOLOGICAL INFORMATION****TOXICOLOGICAL INFORMATION**

No information specific to this product is available.

**INHALATION**

Vapors may irritate the respiratory system and cause coughing, asthmatic breathing and breathlessness.

**INGESTION**

May cause nausea, headache, dizziness and intoxication. Gastrointestinal symptoms, including upset stomach

**SKIN CONTACT**

Acts as a defatting agent on skin. May cause cracking of skin, and eczema. May be absorbed through the skin. Prolonged or repeated skin contact may cause dermatitis.

**EYE CONTACT**

Risk of serious damage to eyes.

**TARGET ORGANS**

Kidneys, Central nervous system, Liver, Cardiovascular system, Eyes

TOXICITY DATA			CARCINOGENICITY					
CAS#	RTECS	LD50	ACGIH	IARC	NIOSH	NTP	OSHA	Other
64-17-5	KQ630 0000	Mouse iv 2.0 g/L	NDA	NDA	NDA	NDA	NDA	NDA
7647-01-0	MW40 25000	Mouse ip 1449 mg/kg	NDA	IARC-3, TLV-A4	NDA	NDA	NDA	NDA

Only selected Registry of Toxic Effects of Chemical substances (RTECS) data is presented here. Consult the actual entry in RTECS for complete information

**12. ECOLOGICAL INFORMATION****ECOTOXICITY**

Dangerous for the environment: May cause long-term adverse effects in the aquatic environment.

**13. DISPOSAL CONSIDERATIONS****GENERAL INFORMATION**

Waste is classified as special waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

**DISPOSAL METHODS**

Incinerate in suitable combustion chamber.

**14. TRANSPORT INFORMATION**

US DOT: No information available  
 IMO: No information available.  
 IATA: No information available.  
 RID/ADR: No information available.  
 Canadian TDG: No information available.

**15. REGULATORY INFORMATION****LABELLING**

Corrosive

CONTAINS ETHANOL, HYDROCHLORIC ACID

SIGNAL WORD DANGER

**RISK PHRASES**

R11 : Highly flammable.  
 R23 : Toxic by inhalation.  
 R35 : Causes severe burns.

**SAFETY PHRASES**

S2 : Keep out of the reach of children.  
 S7 : Keep container tightly closed.  
 S9 : Keep container in a well-ventilated place.  
 S16 : Keep away from sources of ignition - No smoking.  
 S1/2 : Keep locked up and out of the reach of children.  
 S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.  
 S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**EU DIRECTIVES**

Dangerous Preparations Directive 1999/45/EC. Dangerous Substance Directive 67/548/EEC. Safety Data Sheets Directive (91/155/EEC, as amended by Directives 93/112/EC and 2001/58/EC)

**16. MISCELLANEOUS INFORMATION****REVISION COMMENTS**

Compiled in accordance with 1999/45/EC (Dangerous Preparations Directive) and 28th ATP (Adaptation to Technical Progress) to 67/548/EEC (Dangerous Substances Directive).

N/A: Not Applicable    NDA: No Data Available

Each BioGenex MSDS was developed to be used only with the corresponding BioGenex product. The information above is believed to be accurate and represents the best information currently available. We make, however, NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. Users should make their own investigations to determine the suitability of the information for their particular purposes. BioGenex MSD's are not for resale.