Safety Data Sheet

Herovici's Stain Kit

Cat#: orb1711404

Section 1. Identification of the Substance/Mixture

1.1 Product Identifier	Product Name: Herovici's Stain Kit Product Catalog Numbers: orb1711404
1.2 Intended use	Laboratory reagent. For professional use only.

Section 2. Hazards Identification

2.1 GHS Classification	Flammable liquids (Category 2) – H225 Serious eye damage (Category 1) – H318 Skin sensitization (Category 1) – H317 Acute toxicity, oral (Category 4) – H302 Acute toxicity, dermal (Category 4) – H312 Corrosive to metals (Category 1) – H290
2.2 Label Elements	**Pictogram(s):**  **Signal word:** Danger **Hazard statement(s):** H225 – Highly flammable liquid and vapour H318 – Causes serious eye damage H290 – May be corrosive to metals H317 – May cause an allergic skin reaction H302 – Harmful if in contact with skin H312 – Harmful if swallowed **Precautionary statement(s):** P210 – Keep away from heat/sparks/open flames/hot surfaces – No smoking P302+ P352 – IF ON SKIN: Wash with plenty of soap and water P305 + P351 + P315 – IF IN EYES: Rinse cautiously with water for several minutes. Get immediate medical advice/attention.

Biorbyt Ltd
7 Signet Court, Swann Road, Cambridge, CB5 8LA. United Kingdom
Email: info@biorbyt.com | Phone: +44 (0)1223 859-353 | Fax: +44 (0)1223 280-240

Biorbyt LLC
68 TW Alexander Drive, Durham, NC 27713. United States
Email: info@biorbyt.com | Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558

NFPA **Scale: 0-4** (Estimated for Mixtures and Kits)	
HMIS (U.S.A.) **Scale: 0-4** (Estimated for Mixtures and Kits)	HEALTH **2** FLAMMABILITY **3** PHYSICAL HAZARD **0** PERSONAL PROTECTION **C**
2.3 Other Hazards	**PBT:** This Kit does not contain any substances that are assessed to be a PBT. **vPvB:** This Kit does not contain any substances that are assessed to be a vPvB.

Section 3. Composition and Information on Ingredients

See components' SDS

Section 4. First Aid Measures

See components' SDS

Section 5. Fire Fighting Measures

See components' SDS

Section 6. Accidental Release Measures

See components' SDS

Section 7. Handling and Storage

7.1 Precautions for safe handling.

Avoid damaging kit.

7.2 Conditions for safe storage, including any incompatibilities.

Store in well ventilated area.

Store at 15-30°C.

7.3 Specific end use(s).

See section 1.2

Section 8. Exposure Controls / Personal Protection

See components' SDS

Section 9. Physical and Chemical Properties

See components' SDS

Section 10. Stability and Reactivity

See components' SDS

Section 11. Toxicological Information

See components' SDS

Section 12. Ecological Information

See components' SDS

Section 13. Disposal Considerations

See components' SDS

Section 14. Transport Information

14.1 UN Number	2924
14.2 UN Proper Shipping Name	Flammable liquid, corrosive, n.o.s.
14.3 Transport Hazard Class(es)	3(8)
14.4 Packing Group	III
14.5 Environmental Hazards	Marine Pollutant: No
14.6 Special Precautions for User	Not applicable.

Section 15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Kit.	
Extremely Hazardous Substances; Section 355	None of the components in this Kit are listed.
Toxic Substances Control Act; TSCA	All of the components in this Kit are listed.
California Proposition 65	None of the components in this Kit are listed.
Right To Know Components	**Ethanol:** Massachusetts Pennsylvania New jersey **Isopropanol:** Massachusetts Pennsylvania New jersey **Hematoxylin:** Pennsylvania New Jersey **Picric Acid:** Massachusetts Pennsylvania New jersey

15.2 Chemical Safety Assessment	No Chemical Safety Assessment has been carried out for this substance/Kit.
H and P Statements Translations	For translations of H and P statements see Annex III of the CLP: https://echa.europa.eu/regulations/clp/legislation

Section 16. Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Biorbyt shall not be held liable for any damage resulting from handling or from contact with the above product.

Section 1. Identification of the Substance/Mixture

1.1 Product Identifier	Product Name: Herovici's Stain Solution A
1.2 Intended use	Laboratory reagent. For professional use only.

Section 2. Hazards Identification

2.1 GHS Classification	Skin irritation (Category 2) – H315 Eye irritation (Category 2A) – H320
2.2 Label Elements	 **Pictogram(s):** **Signal word:** Warning **Hazard statement(s):** H315 – Causes skin irritation H320 – Causes eye irritation **Precautionary statement(s):** P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes.
NFPA **Scale: 0-4** (Estimated for Mixtures and Kits)	
HMIS (U.S.A.) **Scale: 0-4** (Estimated for Mixtures and Kits)	HEALTH **1** FLAMMABILITY **0** PHYSICAL HAZARD **0** PERSONAL PROTECTION B
2.3 Other Hazards	**PBT:** This Kit does not contain any substances that are assessed to be a PBT. **vPvB:** This Kit does not contain any substances that are assessed to be a vPvB.

Section 3. Composition and Information on Ingredients

Chemical Description: Mixture

*May contain additional non-hazardous proprietary ingredients.

*May contain additional active ingredients at concentrations <0.1%w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Acetic Acid	64-19-7	200-580-7	 Warning. 3, H226 Flammable liquid and vapour.  Danger. 1A H314 Causes severe skin burns and eye damage.	≤ 2
Aniline Blue	28631-66-5	249-113-9	 Warning. 2 H315 Causes skin irritation. 1, H317 May cause an allergic skin reaction. 2 H319 Causes serious eye irritation	≤ 1%

Section 4. First Aid Measures

4.1 Description of first aid measures

Eye Contact: Check for and remove contact lenses. Immediately flush eyes with copious amounts of water. Get immediate medical attention if irritation persists.

Skin Contact: Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

Inhalation: If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5. Fire Fighting Measures

5.1 Extinguishing Media	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
5.2 Special hazards arising from the substance or mixture	Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides, Sodium oxides.
5.3 Advice for firefighters	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.

6.2 Environmental precautions

Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.

6.3 Methods and materials for containment and cleaning up

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

Section 7. Handling and Storage

7.1 Precautions for safe handling.

Avoid contact with skin and eyes.

Wash thoroughly after handling.

Avoid breathing vapor.

7.2 Conditions for safe storage, including any incompatibilities.

Store in well ventilated area. Keep container tightly closed.

Store at 15-30°C.

7.3 Specific end use(s).

See section 1.2

Section 8. Exposure Controls / Personal Protection

8.1 Control parameters	**Exposure Limits:** Acetic acid, glacial; **ACGIH TLV:** 15ppm (37 mg/m3) STEL 10 ppm (25 mg/m3) TWA **NIOSH REL:** 15 ppm (37 mg/m3) STEL 10 ppm (25 mg/m3) TWA **OSHA PEL:** 10 ppm (25 mg/m3) TWA
8.2 Exposure controls	**Personal Protective Equipment (PPE):** **Eye/Face protection.** Safety glasses or goggles are required. **Skin protection.** Protective clothing is required. **Hand protection.** Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove. **Respiratory protection.** Avoid breathing vapor. **Environmental exposure controls.**

	Avoid releasing large quantities into the environment. No additional information.
8.3 Engineering controls	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Blue
Odor	Odorless
Odor Threshold	Unknown
pH	Unknown
Melting Point/ Freezing Point	Unknown
Initial Boiling Point	Unknown
Flash Point	Unknown
Evaporation Rate	Unknown
Flammability (solid, gas)	Unknown
Upper/Lower Flammability Limits	Unknown
Vapor Pressure	Unknown
Vapor Density	Unknown
Relative Density	Unknown
Solubility(ies)	Water
Partition Coefficient: n-octanol/water	Unknown
Auto-Ignition Temperature	Unknown
Decomposition Temperature	Unknown
Viscosity	Unknown
Explosive Properties	Not explosive.
Oxidizing Properties	Unknown

Section 10. Stability and Reactivity

10.1 Reactivity	No relevant data available.
10.2 Chemical Stability	Stable under normal temperatures and pressures.
10.3 Possibility of Hazardous Reactions	No hazardous reactions known.
10.4 Conditions to Avoid	Fire, static electricity, direct sunlight.
10.5 Incompatible Materials	Strong oxidizing agents, Bases, Acids, Metals.
10.6 Hazardous Decomposition Materials	Carbon monoxide, carbon dioxide, nitrogen oxides.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects.	**Acute Toxicity.** No relevant data available **Skin Corrosion/Irritation.** Irritating to skin and mucous membranes. **Serious Eye Damage/Irritation.** Irritating to the eye. **Respiratory or skin sensitization.** No relevant data available. **Germ Cell Mutagenicity.** No relevant data available.
11.2 Carcinogenicity.	**International Agency for Research on Cancer (IARC).** None of the components are listed. **National Toxicology Program (NTP).** None of the components are listed.

Section 12. Ecological Information

12.1 Toxicity	**Fish:** No relevant studies identified. **Crustacea:** No relevant studies identified. **Algae/Aquatic Plants:** No relevant studies identified. **Other Organisms:** No relevant studies identified.
12.2 Persistence and Degradability.	No relevant studies identified.
12.3 Bioaccumulative Potential.	No relevant studies identified.
12.4 Mobility in Soil.	Miscible in water. May spread in water systems. This component is non-volatile.
Additional Remarks	None.
12.5 Results of PBT and vPvB Assessment.	**PBT:** This mixture does not contain any substances that are assessed to be a PBT. **vPvB:** This mixture does not contain any substances that are assessed to be a vPvB.

Section 13. Disposal Considerations

13.1 Waste Disposal Methods.	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.

13.2 Product/Packaging Disposal.	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
13.3 Other Disposal Recommendations.	No relevant data available.

Section 14. Transport Information

14.1 UN Number	Not dangerous goods.
14.2 UN Proper Shipping Name	Not dangerous goods.
14.3 Transport Hazard Class(es)	Not dangerous goods.
14.4 Packing Group	Not dangerous goods.
14.5 Environmental Hazards	Marine Pollutant: No
14.6 Special Precautions for User	Not applicable.

Section 15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.	
Extremely Hazardous Substances; Section 355	None of the components in this mixture are listed.
Toxic Substances Control Act; TSCA	All of the components in this mixture are listed.
California Proposition 65	None of the components in this mixture are listed.
Right To Know Components	Acetic Acid, CAS # 64-19-7 California Massachusetts Minnesota New Jersey Pennsylvania Rhode Island
15.2 Chemical Safety Assessment	No Chemical Safety Assessment has been carried out for this substance/mixture.
H statements	H315 – Causes skin irritation Causes skin irritation.
P statements	P302+ P352 - IF ON SKIN: Wash with plenty of soap and water IF ON SKIN: Wash with plenty of soap and water.
15.2 Chemical Safety Assessment	No Chemical Safety Assessment has been carried out for this substance/mixture.
H statements	H315 – Causes skin irritation Causes skin irritation.
P statements	P302+ P352 - IF ON SKIN: Wash with plenty of soap and water IF ON SKIN: Wash with plenty of soap and water.

Section 16. Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Biorbyt shall not be held liable for any damage resulting from handling or from contact with the above product.

Section 1. Identification of the Substance/Mixture

1.1 Product Identifier	Product Name: Herovici's Stain Solution B
1.2 Intended use	Laboratory reagent. For professional use only.

Section 2. Hazards Identification

2.1 GHS Classification	Skin sensitization (Category 1) – H317 Acute toxicity, oral (Category 4) – H302 Acute toxicity, dermal (Category 4) – H312 Corrosive to metals (Category 1) – H290 Serious eye damage (Category 1) – H318
2.2 Label Elements	**Pictogram(s):**  **Signal word:** Danger **Hazard statement(s):** H290 – May be corrosive to metals H317 – May cause an allergic skin reaction H318 – Causes serious eye damage H302 – Harmful if in contact with skin H312 – Harmful if swallowed **Precautionary statement(s):** P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes. P230 – Keep wetted with water [Picric acid may become explosive if allowed to dry]
NFPA **Scale: 0-4** (Estimated for Mixtures and Kits)	
HMIS (U.S.A.) **Scale: 0-4** (Estimated for Mixtures and Kits)	HEALTH **2** FLAMMABILITY **0** PHYSICAL HAZARD **1** PERSONAL PROTECTION **C**
2.3 Other Hazards	**PBT:** This mixture does not contain any substances that are assessed to be a PBT. **vPvB:** This mixture does not contain any substances that are assessed to be a vPvB.

Section 3. Composition and Information on Ingredients

Chemical Description: Mixture

*May contain additional non-hazardous proprietary ingredients.

*May contain additional active ingredients at concentrations <0.1%w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Picric acid	88-89-1	201-865-9	 Danger. Div 1.1 H201 Explosive; mass explosion hazard  Danger. 3 H301 Toxic if swallowed. 3 H311 Toxic in contact with skin. 3 H331 Toxic if inhaled.	≤ 2
Acid Fuchsin Calcium Salt	123334-10-1		N/A	≤ 0.1
Hydrochloric Acid (~37%)	7647-01-0	231-595-7	 Warning. 3. H335 May cause respirtory irritation.  Danger. 1B. H314 Causes severe skin burns and eye damage.	≤ 0.2

Section 4. First Aid Measures

4.1 Description of first aid measures

Eye Contact: Check for and remove contact lenses. Immediately flush eyes with copious amounts of water. Get immediate medical attention if irritation persists.

Skin Contact: Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

Inhalation: If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5. Fire Fighting Measures

5.1 Extinguishing Media	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
5.2 Special hazards arising from the substance or mixture	Dried picric acid forms explosive compounds. Do not allow material to completely dry.

5.3 Advice for firefighters	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.

6.2 Environmental precautions

Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.

6.3 Methods and materials for containment and cleaning up

Wipe up or absorb spill using inert absorbent and place **under water** in a waste container for proper disposal.

Section 7. Handling and Storage

7.1 Precautions for safe handling.

Avoid contact with skin and eyes.

Wash thoroughly after handling.

Avoid breathing vapor.

7.2 Conditions for safe storage, including any incompatibilities.

Store in well ventilated area.

Keep container tightly closed.

Store at 15-30°C.

7.3 Specific end use(s).

See section 1.2

Section 8. Exposure Controls / Personal Protection

8.1 Control parameters	**Exposure Limits:** Picric Acid **NIOSH REL:** TWA 0.1 mg/m^3 ST 0.3 /m^3[skin] **OSHA PEL:** TWA 0.1 mg/m^3 [skin]
8.2 Exposure controls	**Personal Protective Equipment (PPE):** **Eye/Face protection.** Safety glasses or goggles are required. **Skin protection.** Protective clothing is required. **Hand protection.** Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove. **Respiratory protection.**

	Avoid breathing vapor. **Environmental exposure controls.** Avoid releasing large quantities into the environment. No additional information.
8.3 Engineering Controls	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Red
Odor	Odorless
Odor Threshold	Unknown
pH	Acidic
Melting Point/ Freezing Point	Unknown
Initial Boiling Point	Unknown
Flash Point	Unknown
Evaporation Rate	Unknown
Flammability (solid, gas)	Unknown
Upper/Lower Flammability Limits	Unknown
Vapor Pressure	Unknown
Vapor Density	Unknown
Relative Density	Unknown
Solubility(ies)	Water
Partition Coefficient: n-octanol/water	Unknown
Auto-Ignition Temperature	Unknown
Decomposition Temperature	Unknown
Viscosity	Unknown
Explosive Properties	Not explosive in liquid state. However, picric acid may become an explosion hazard if allowed to dry.
Oxidizing Properties	Unknown

Section 10. Stability and Reactivity

10.1 Reactivity	No relevant data available.
10.2 Chemical Stability	Stable under normal temperatures and pressures.
10.3 Possibility of Hazardous Reactions	No hazardous reactions known.
10.4 Conditions to Avoid	Picric acid forms salt with many metals some of which are rather sensitive to heat, friction, or impact, e.g., lead, iron, zinc, nickel, copper, etc., and should be considered dangerously sensitive.
10.5 Incompatible Materials	Strong bases, metals, reducing agents, ammonia.
10.6 Hazardous Decomposition Materials	Carbon monoxide, carbon dioxide.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects.	**Acute Toxicity.** No relevant data available **Skin Corrosion/Irritation.** Irritating to skin and mucous membranes. **Serious Eye Damage/Irritation.** Corrosive to eye **Respiratory or skin sensitization.** No relevant data available. **Germ Cell Mutagenicity.** No relevant data available.
11.2 Carcinogenicity.	**International Agency for Research on Cancer (IARC).** None of the components are listed. **National Toxicology Program (NTP).** None of the components are listed.

Section 12. Ecological Information

12.1 Toxicity	Fish: No relevant studies identified. Crustacea: No relevant studies identified. Algae/Aquatic Plants: No relevant studies identified. Other Organisms: No relevant studies identified.
12.2 Persistence and Degradability.	No relevant studies identified.
12.3 Bioaccumulative Potential.	No relevant studies identified.
12.4 Mobility in Soil.	Miscible in water. May spread in water systems. This component is non-volatile.
Additional Remarks	None.
12.5 Results of PBT and vPvB Assessment.	**PBT:** This mixture does not contain any substances that are assessed to be a PBT. **vPvB:** This mixture does not contain any substances that are assessed to be a vPvB.

Section 13. Disposal Considerations

13.1 Waste Disposal Methods.	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
13.2 Product/Packaging Disposal.	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
13.3 Other Disposal Recommendations.	No relevant data available.

Section 14. Transport Information

14.1 UN Number DOT, IATA, IMDG, ADR	3265
14.2 UN Proper Shipping Name	Corrosive liquid, acidic, organic, n.o.s.
14.3 Transport Hazard Class(es)	8
14.4 Packing Group	III
14.5 Environmental Hazards	Marine Pollutant: No
14.6 Special Precautions for User	Not applicable.

Section 15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.	
Extremely Hazardous Substances; Section 355	None of the components in this mixture are listed.
Toxic Substances Control Act; TSCA	All of the components in this mixture are listed.
Other Regulations	Picric Acid is listed on the SARA 313
California Proposition 65	None of the components in this mixture are listed.
Right To Know Components	Picric Acid California Massachusetts Minnesota New Jersey Pennsylvania Rhode Island
15.2 Chemical Safety Assessment	No Chemical Safety Assessment has been carried out for this substance/mixture.
H and P Statements Translations	For translations of H and P statements see Annex III of the CLP: https://echa.europa.eu/regulations/clp/legislation

Section 16. Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Biorbyt shall not be held liable for any damage resulting from handling or from contact with the above product.

Section 1. Identification of the Substance/Mixture

1.1 Product Identifier	Product Name: Hematoxylin, Weigert's Iron (Part A)
1.2 Intended use	Laboratory reagent. For professional use only.

Section 2. Hazards Identification

2.1 GHS Classification	Flammable liquids (Category 2) – H225 Skin irritation (Category 2) – H315 Eye irritation (Category 2A) – H319 Specific target organ toxicity (Category 3), Central nervous system – H336
2.2 Label Elements	**Pictogram(s):**  **Signal word:** Danger **Hazard statement(s):** H226 – Flammable liquid and vapour H319 – Causes serious eye irritation H315 – Causes skin irritation H336 – May cause drowsiness or dizziness **Precautionary statement(s):** P210 – Keep away from heat/sparks/open flames/hot surfaces – No smoking P302+ P352 – IF ON SKIN: Wash with plenty of soap and water P305 + P351 – IF IN EYES: Rinse cautiously with water for several minutes.
NFPA **Scale: 0-4** (Estimated for Mixtures and Kits)	
HMIS (U.S.A.) **Scale: 0-4** (Estimated for Mixtures and Kits)	HEALTH **1** FLAMMABILITY **3** PHYSICAL HAZARD **0** PERSONAL PROTECTION **G**
2.3 Other Hazards	**PBT:** This mixture does not contain any substances that are assessed to be a PBT. **vPvB:** This mixture does not contain any substances that are assessed to be a vPvB.

Section 3. Composition and Information on Ingredients

Chemical Description: Mixture

*May contain additional non-hazardous proprietary ingredients.

*May contain additional active ingredients at concentrations <0.1%w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Ethanol	64-17-5	200-578-6	 Danger. 2 H225 Highly flammable liquid and vapour.	≤ 95
Isopropanol	67-63-0	200-661-7	 Warning. 2. H319 Causes serious eye irritation. 3. H336 May cause drowsiness or dizziness.  Danger. 3 H225 Highly flammable liquid and vapour.	≤ 5
Hematoxylin	517-28-2	208-237-3	 Warning. 4 H302 Harmful if swallowed. 2 H315 Causes skin irritation. 2 H319 Causes serious eye irritation. 3 H335 May cause respiratory irritation.	≤ 1

Section 4. First Aid Measures

4.1 Description of first aid measures

Eye Contact: Check for and remove contact lenses. Immediately flush eyes with copious amounts of water. Get medical attention if irritation continues.

Skin Contact: Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

Inhalation: If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5. Fire Fighting Measures

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

5.2 Special hazards arising from the substance or mixture	No unusual fire or explosive hazards expected
5.3 Advice for firefighters	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.

6.2 Environmental precautions

Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.

6.3 Methods and materials for containment and cleaning up

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

Section 7. Handling and Storage

7.1 Precautions for safe handling.

Avoid contact with skin and eyes.

Wash thoroughly after handling.

Avoid breathing vapor.

7.2 Conditions for safe storage, including any incompatibilities.

Store in well ventilated area.

Keep container tightly closed.

Store at 15-30°C.

7.3 Specific end use(s).

See section 1.2

Section 8. Exposure Controls / Personal Protection

8.1 Control parameters	**Exposure Limits:** **Ethanol:** NIOSH REL: 1000 ppm (1900 mg/m^3) TWA OSHA PEL: 1000 ppm (1900 mg/m^3) TWA ACGIH TLV: 1000ppm (1900mg/m^3) TWA **Isopropanol:** NIOSH REL: TWA 400 ppm (980 mg/m^3) ST 500 ppm (1225 mg/m^3) OSHA PEL: TWA 400 ppm (980 mg/m^3) ACGIH TLV: TWA 200 ppm STEL 400 ppm
8.2 Exposure controls	**Personal Protective Equipment (PPE):** **Eye/Face protection.** Safety glasses or goggles are required. **Skin protection.** Protective clothing is required. **Hand protection.**

	Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove. **Respiratory protection.** Avoid breathing vapor. **Environmental exposure controls.** Avoid releasing large quantities into the environment. No additional information.
Engineering Controls	Working area should be adequately large and well ventilated to prevent concentration of vapors. Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Transparent red/brown
Odor	Mild alcohol odor
Odor Threshold	Unknown
pH	Unknown
Melting Point/ Freezing Point	Unknown
Initial Boiling Point	Unknown
Flash Point	Unknown
Evaporation Rate	Unknown
Flammability (solid, gas)	Unknown
Upper/Lower Flammability Limits	Unknown
Vapor Pressure	Unknown
Vapor Density	Unknown
Relative Density	Unknown
Solubility(ies)	Water
Partition Coefficient: n-octanol/water	Unknown
Auto-Ignition Temperature	Unknown
Decomposition Temperature	Unknown
Viscosity	Unknown

Explosive Properties	Not explosive.
Oxidizing Properties	Unknown

Section 10. Stability and Reactivity

10.1 Reactivity	No relevant data available.
10.2 Chemical Stability	Stable under normal temperatures and pressures.
10.3 Possibility of Hazardous Reactions	No hazardous reactions known.
10.4 Conditions to Avoid	Fire, static electricity, direct sunlight.
10.5 Incompatible Materials	Strong oxidizers, silver salts, acid chlorides, alkali metals, metal hydrides, hydrazine.
10.6 Hazardous Decomposition Materials	Will not occur.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects.	**Acute Toxicity.** No relevant data available **Skin Corrosion/Irritation.** Irritating to skin and mucous membranes. **Serious Eye Damage/Irritation.** Corrosive to eye **Respiratory or skin sensitization.** No relevant data available. **Germ Cell Mutagenicity.** No relevant data available.
11.2 Carcinogenicity.	**International Agency for Research on Cancer (IARC).** None of the components are listed. **National Toxicology Program (NTP).** None of the components are listed.

Section 12. Ecological Information

12.1 Toxicity	Fish: No relevant studies identified. Crustacea: No relevant studies identified. Algae/Aquatic Plants: No relevant studies identified. Other Organisms: No relevant studies identified.
12.2 Persistence and Degradability.	No relevant studies identified.
12.3 Bioaccumulative Potential.	No relevant studies identified.
12.4 Mobility in Soil.	Miscible in water. May spread in water systems. This component is non-volatile.
Additional Remarks	None.
12.5 Results of PBT and vPvB Assessment.	**PBT:** This mixture does not contain any substances that are assessed to be a PBT.

	vPvB: This mixture does not contain any substances that are assessed to be a vPvB.

Section 13. Disposal Considerations

13.1 Waste Disposal Methods.	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
13.2 Product/Packaging Disposal.	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
13.3 Other Disposal Recommendations.	No relevant data available.

Section 14. Transport Information

14.1 UN Number	1170
14.2 UN Proper Shipping Name	Ethanol Solution
14.3 Transport Hazard Class(es)	3 
14.4 Packing Group	II
14.5 Environmental Hazards	Marine Pollutant: No
14.6 Special Precautions for User	Not applicable.

Section 15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.	
Extremely Hazardous Substances; Section 355	None of the components in this mixture are listed.
Toxic Substances Control Act; TSCA	All of the components in this mixture are listed.
California Proposition 65	None of the components in this mixture are listed.
Right To Know Components	**Ethanol** Massachusetts Pennsylvania New jersey **Isopropanol** Massachusetts Pennsylvania New jersey **Hematoxylin** Pennsylvania New Jersey

Section 16. Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Biorbyt shall not be held liable for any damage resulting from handling or from contact with the above product.

Section 1. Identification of the Substance/Mixture

1.1 Product Identifier	Product Name: Hematoxylin, Weigert's Iron (Part B)
1.2 Intended use	Laboratory reagent. For professional use only.

Section 2. Hazards Identification

2.1 GHS Classification	Skin irritation (Category 2) – H315 Serious eye damage (Category 1) – H318
2.2 Label Elements	 **Pictogram(s):** **Signal word:** Danger **Hazard statement(s):** H315 – Causes skin irritation H320 – Causes serious eye damage **Precautionary statement(s):** P302+ P352 – IF ON SKIN: Wash with plenty of soap and water P305 + P351 + P315 – IF IN EYES: Rinse cautiously with water for several minutes. Get immidiate medical advice/attention.
NFPA **Scale: 0-4** (Estimated for Mixtures and Kits)	
HMIS (U.S.A.) **Scale: 0-4** (Estimated for Mixtures and Kits)	HEALTH **2** FLAMMABILITY **0** PHYSICAL HAZARD **0** PERSONAL PROTECTION **C**
2.3 Other Hazards	**PBT:** This mixture does not contain any substances that are assessed to be a PBT. **vPvB:** This mixture does not contain any substances that are assessed to be a vPvB.

Section 3. Composition and Information on Ingredients

Chemical Description: Mixture

*May contain additional non-hazardous proprietary ingredients.

*May contain additional active ingredients at concentrations <0.1%w/v.

Hazardous Ingredients:	CAS#	EC#	GHS Symbols	%
Ferric Chloride	10025-77-1	231-729-4	 Warning. 1. H290 May be corrosive to metals. Warning. 4 H302 Harmful if swallowed. 2 H315 Causes skin irritation. Danger. 1 H318 Causes serious eye damage.	≤ 1
Hydrochloric Acid (~37%)	7647-01-0	231-595-7	Warning. 3. H335 May cause respirtory irritation. Danger. 1B. H314 Causes severe skin burns and eye damage.	≤ 1

Section 4. First Aid Measures

4.1 Description of first aid measures

Eye Contact: Check for and remove contact lenses. Immediately flush eyes with copious amounts of water and get immediate medical attention.

Skin Contact: Remove contaminated clothing and wash contact area with mild soap and copious amounts of water. Get medical attention if irritation develops.

Inhalation: If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms worsen.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as collar, tie, belt or waistband. Get immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5. Fire Fighting Measures

5.1 Extinguishing Media	Extinguish fire using water spray, carbon dioxide, chemical foam, or dry chemical.
5.2 Special hazards arising from the substance or mixture	No unusual fire or explosion hazards expected.
5.3 Advice for firefighters	As with any fire, wear personal protection equipment, including a self-contained breathing apparatus (S.C.B.A.)

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear chemical resistant clothing, gloves, and eye protection. Wear NIOSH/MSHA approved breathing apparatus.

6.2 Environmental precautions

Keep material away from heat, flame, ignition sources, and reactive materials. Don't allow product to enter drain.

6.3 Methods and materials for containment and cleaning up

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

Section 7. Handling and Storage

7.1 Precautions for safe handling.

Avoid contact with skin and eyes.

Wash thoroughly after handling.

Avoid breathing vapor.

7.2 Conditions for safe storage, including any incompatibilities.

Store in well ventilated area.

Keep container tightly closed.

Store at 15-30°C.

7.3 Specific end use(s).

See section 1.2

Section 8. Exposure Controls / Personal Protection

8.1 Control parameters	**Exposure Limits:** Ferric chloride: TWA 1 mg/m3 STEL 2 mg/m3
8.2 Exposure controls	**Personal Protective Equipment (PPE):** **Eye/Face protection.** Safety glasses or goggles are required. **Skin protection.** Protective clothing is required. **Hand protection.** Chemical resistant gloves are required. Glove material must be resistant to the components of this product. Consult glove manufacturer for specific recommendations of appropriate material and thickness of glove. **Respiratory protection.** Avoid breathing vapor. **Environmental exposure controls.** Avoid releasing large quantities into the environment. No additional information.
8.3 Engineering Controls	Working area should be adequately large and well ventilated to prevent concentration of vapors.

	Provide mechanical exhaust ventilation or other engineering controls to keep airborne concentrations of vapors below their respective threshold limits.

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	Orange
Odor	Odorless
Odor Threshold	Unknown
pH	Unknown
Melting Point/ Freezing Point	Unknown
Initial Boiling Point	Unknown
Flash Point	Unknown
Evaporation Rate	Unknown
Flammability (solid, gas)	Unknown
Upper/Lower Flammability Limits	Unknown
Vapor Pressure	Unknown
Vapor Density	Unknown
Relative Density	Unknown
Solubility(ies)	Water
Partition Coefficient: n-octanol/water	Unknown
Auto-Ignition Temperature	Unknown
Decomposition Temperature	Unknown
Viscosity	Unknown
Explosive Properties	Not explosive.
Oxidizing Properties	Unknown

Section 10. Stability and Reactivity

10.1 Reactivity	No relevant data available.
10.2 Chemical Stability	Stable under normal temperatures and pressures.
10.3 Possibility of Hazardous Reactions	No hazardous reactions known.

10.4 Conditions to Avoid	Fire, static electricity, direct sunlight.
10.5 Incompatible Materials	Metals, allyl chloride, sodium, potassium.
10.6 Hazardous Decomposition Materials	Hydrogen Chloride Fumes.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects.	**Acute Toxicity.** No relevant data available **Skin Corrosion/Irritation.** Irritating to skin and mucous membranes. Serious Eye Damage/Irritation. Causes serious damage to eye. **Respiratory or skin sensitization.** No relevant data available. **Germ Cell Mutagenicity.** No relevant data available.
11.2 Carcinogenicity.	**International Agency for Research on Cancer (IARC).** None of the components are listed. **National Toxicology Program (NTP).** None of the components are listed.

Section 12. Ecological Information

12.1 Toxicity	Fish: No relevant studies identified. Crustacea: No relevant studies identified. Algae/Aquatic Plants: No relevant studies identified. Other Organisms: No relevant studies identified.
12.2 Persistence and Degradability.	No relevant studies identified.
12.3 Bioaccumulative Potential.	No relevant studies identified.
12.4 Mobility in Soil.	Miscible in water. May spread in water systems. This component is non-volatile.
Additional Remarks	None.
12.5 Results of PBT and vPvB Assessment.	**PBT:** This mixture does not contain any substances that are assessed to be a PBT. **vPvB:** This mixture does not contain any substances that are assessed to be a vPvB.

Section 13. Disposal Considerations

13.1 Waste Disposal Methods.	Sewage disposal is discouraged. Waste should not be disposed of by release to sewers. Dispose waste in accordance with federal, state and local environmental control regulations.
13.2 Product/Packaging Disposal.	Final decisions on the appropriate waste management method must be in line with local, regional and national regulations.
13.3 Other Disposal Recommendations.	No relevant data available.

Section 14. Transport Information

14.1 UN Number	Not regulated for transport.
14.2 UN Proper Shipping Name	Not regulated for transport.
14.3 Transport Hazard Class(es)	Not regulated for transport.
14.4 Packing Group DOT, IATA, IMDG, ADR	Not regulated for transport.
14.5 Environmental Hazards	Marine Pollutant: No
14.6 Special Precautions for User	Not applicable.

Section 15. Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture.	
Extremely Hazardous Substances; Section 355	None of the components in this mixture are listed.
Toxic Substances Control Act; TSCA	All of the components in this mixture are listed.
California Proposition 65	None of the components in this mixture are listed.
Right To Know Components	None of the components in this mixture are listed.

Section 16. Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Biorbyt shall not be held liable for any damage resulting from handling or from contact with the above product.