RANKIN

SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Eosin-Y Phloxine
Synonyms: None
Product Codes: 6403-1G, 6403-500

Manufacturer: Rankin Biomedical
Address: 10399 Enterprise Drive, Davisburg, MI 48530
Support: 1-877-882-3679
Chemtrec Phone: 1-800-424-9300

Product Use: Biological Stain
Prepared By: SB
Section 1 Notes:

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification: Flammable liquid Category 2; Acute toxicity, oral Category 4; Acute toxicity, dermal Category 4; Serious eye damage/irritation Category 2A; Acute toxicity, inhalation Category 4; Skin corrosion/Irritation Category 2; Specific Target Organ toxicity – single exposure Category 2

Signal Word: Danger!

HAZARD PHRASES	
H225	Highly flammable liquid and vapor
H315	Causes skin irritation
H319	Causes serious eye irritation.
H302+H312	Harmful if swallowed or in contact with skin.
H332	Harmful if inhaled.
H370	Causes damage to organs.

PRECAUTIONARY PHRASES	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Avoid breathing dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/ eye protection/ face protection.
P264	Wash hands thoroughly after handling.
P303+P361+P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P307+P311	IF exposed: Call a POISON CENTER or doctor/ physician.
P363	Wash contaminated clothing before reuse.

Section 2 Notes:

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	% WT
Ethanol	64-17-5	<66
IPA	67-56-1	5
Eosin Y	17372-87-1	<1
Methyl Isobutyl Ketone	108-10-1	<1
Acetic Acid	64-19-7	<1
Phloxine B	18472-87-2	<1
Water	7732-18-5	balance

Section 3 Notes:

SECTION 4: FIRST AID MEASURES

Eyes: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin: In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If skin irritation occurs: Get medical attention/advice.

Ingestion: Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Inhalation: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if you feel unwell.

Section 4 Notes:

SECTION 5: FIRE-FIGHTING MEASURES

Flammability of the product: Flammable Liquid

Flash Point: Not available

Autoignition Temperature: Not available

NFPA Hazard Classification:
Health: 1
Flammability: 3
Reactivity: 0
Other

HMIS Hazard Classification:
Health: 1
Flammability: 3
Reactivity: 0
Protection

Extinguishing Media: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Not Suitable: Do not use water jet.

Special fire fighting procedures: Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst with the risk of a subsequent explosion. Run-off to sewer may create fire or explosion hazard.
Hazardous decomposition products: Oxides of carbon expected to be the primary combustion product.
Section 5 Notes: Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

Small spill and leak: Shut off all ignition sources. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8). Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.
Large spill and leak: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.
Section 6 Notes:

SECTION 7: HANDLING AND STORAGE

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product. Keep away from heat, sparks and open flames, hot surfaces. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.
Storage: Store locked up. Store in a well-ventilated place. Keep cool.
Section 7 Notes:

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls: General mechanical ventilation or laboratory fume hood. Ensure that eyewash stations and quick drench showers are close to the workstation.
Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.
Environmental Exposure Controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Work Hygenic Practices: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

EXPOSURE GUIDELINES:
OSHA Permissible Exposure Limits (PELs):

Reagent	CAS#	OSHA PEL TWA	Note
Ethyl Alcohol	64-17-5	1000 ppm (1,900 mg/m3)	29 CFR 1910.1000 Table Z-1 Limits for Air Containments
Isopropyl Alcohol	67-63-0	400ppm	
MIBK	108-10-1	100 ppm, 410 mg/m3	29 CFR 1910.1000 Table Z-1 Limits for Air Containments

ACGIH Threshold Limit values (TLVs):

Reagent	CAS#	ACGIH PEL TWA	ACGIH STEL	Note
Ethyl Alcohol	64-17-5	1000 ppm		Upper respiratory tract irritation. Confirmed animal carcinogen with unknown relevance to humans
Isopropyl Alcohol	67-63-0	400ppm (983 mg/m3)	500ppm (1230 mg/m3)	
MIBK	108-10-1	50 ppm	75 ppm	

Section 8 Notes:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Reddish-orange
Odor: Alcohol like
Physical state: liquid
pH as supplies: Not available
Boiling point: 64.5°C (148.1°F)
Melting point: Not available
Freezing point: -97.8C (-144F)
Vapor pressure (mmHg): 12.9 lPa (97 mm Hg)
Vapor density (AIR = 1): 1.11 [Air=1]
Evaporation rate: 2.1 (butyl acetate=1)
Solubility in water: Soluble in water
Molecular weight: Mixture
Viscosity: Not established

Section 9 Notes:

SECTION 10: EXPOSURE CONTROL/PERSONAL PROTECTION

Stability: Product is stable under normal conditions of use.
Conditions to avoid (Stability): Avoid heat, sparks, flames, and all other sources of ignition.
Incompatibility (Material to avoid): Strong oxidizers, potassium dioxide, bromine pentafluoride, acetyl bromide, acetyl chloride, platinum, sodium.
Hazardous decomposition or by-products: Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: oxides of carbon.
Hazardous polymerization: No hazardous polymerization
Conditions to avoid (Polymerization): Heat, open flame.
Section 10 Notes:

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral:
- Ethanol: LD50 (oral, mouse) = 3450 mg/kg

Inhalation:
- Ethanol: LD50 (inhalation, mouse) = 39000 mg/m3/4H

Dermal LD50:
- no data available

Skin corrosion/irritation:
- no data available

Eyes:
- no data available

Respiratory or skin sensitization
- no data available

Germ cell mutagenicity:
- no data available

CARCINOGENICITY:

(NTP, IARC, OSHA):

- not listed as a carcinogen

Aspiration hazard:

- no data available

Potential Health Effects

Inhalation	Dizziness, headache, nausea, narcosis
Ingestion	May cause nausea, damage to GI tract, liver, kidneys, cardiovascular system. Carcinogenic if ingested repeatedly over time (IARC List 1-Ethanol in alcoholic beverages)
Skin	Causes skin irritation.
Eyes	Causes eye irritation.

SIGNS AND SYMPTOMS OF EXPOSURE: Irritation eyes, skin, nose; headache, drowsiness, weakness, exhaustion, narcosis; cough; liver damage; anemia; reproductive, teratogenic effects.

ROUTES OF ENTRY: Skin/Eye contact, inhalation, and ingestion.
TARGET ORGANS: Kidney, Liver, Heart, Central nervous system

Section 11 Notes:

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL TOXICITY:
Acute fish Toxicity (Hydrochloric Acid)
LC50 Oncorhynchus mykiss (rainbow trout) >10,000 mg/l 96hr
LC50 Pimephales promelas (fathead minnow) >13,400 mg/l 96hr
PERSISTENCE AND DEGRADABILITY: Biodegradation is expected
BIOACCUMULATIVE POTENTIAL: Bioaccumulation is unlikely.
MOBILITY IN SOIL: No data available
PBT and vPvB ASSESSMENT: Not required.

Section 12 Notes:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Unused product: dispose as a regulated hazardous waste. Spent product or spill clean up-follow all provincial, local, state, and federal regulations.

RCRA HAZARD CLASS: Not classified

Section 13 Notes:

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

UN No.	UN1170
Proper Shipping Name	Ethanol Solutions
Hazzard Class	3
Packing Group	II

TDG

UN No.	UN1170
Proper Shipping Name	Ethanol
Hazzard Class	3
Packing Group	III

IATA

UN No.	UN1170
Proper Shipping Name	Ethanol
Hazzard Class	3
Packing Group	III

IMDG/IMP

UN No.	UN1170
Proper Shipping Name	Ethanol
Hazzard Class	3
Packing Group	II

SECTION 15: REGULATORY INFORMATION

United States
HCS Classification: Flammable liquid, Toxic material, Irritating material, Target organ effects

U.S. Federal regulations:
TSCA 8(a) IUR: Partial exemption
United States inventory (TSCA 8b): Listed on inventory.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Ethyl Alcohol
SARA 311/312 MSDS distribution - chemical inventory - hazard identification:
Ethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard
SARA 313 Form R – Reporting:

DEA List I & II Chemicals
(Precursor Chemicals): MIBK CAS#108-10-1

RTK STATES: Ethyl Alcohol 64-17-5 NJ, PA, MA Isopropyl Alcohol 67-63-0 NJ, PA, MA
MIBK CAS 108-10-1 MN, FL, MA, NJ, PA, RI

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

CANADA
WHMIS (Canada): Class B-2: Flammable liquid
Class D-1A: Material causing immediate and toxic effects.
Class D-2B: Material causing other toxic effects.

Canadian Lists **CEPA Toxic substances:** The following components are listed: Ethanol Volatile Organic compounds
Canadian ARET: None of the components are listed.
Canadian NPRI: The following components are listed: Ethanol
Volatile organic compounds

CEPA DSL / CEPA NDSL: All components are listed or exempted.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations
International lists: **Australia inventory (AICS):** All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

SECTION 16: OTHER INFORMATION

National Fire Protection Association (U.S.A.)

DISCLAIMER: This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall Rankin Biomedical be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.

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