



a member of the Roche Group

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

VENTANA MEDICAL SYSTEMS INC.
1910 E. Innovation Park Drive
Tucson, Arizona 85755
(520) 887-2155

EMERGENCY TELEPHONE NUMBER:
(800) 424-9300 (USA/Canada)
(CHEMTREC)
+1 (703) 527-3887 (International)

MSDS NUMBER: 00231093

SUBSTANCE: Hematoxylin

PRODUCT USE: clinical/research

CREATION DATE: May 19 2005

REVISION DATE: Mar 05 2009

2. HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=2 FIRE=1 REACTIVITY=0

EC CLASSIFICATION:

No classification assigned.



EMERGENCY OVERVIEW:

COLOR: red or purple

PHYSICAL FORM: liquid

ODOR: faint odor, vinegar odor

MAJOR HEALTH HAZARDS: harmful if inhaled, respiratory tract irritation, skin irritation, eye irritation, central nervous system depression, nerve damage, kidney damage

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: irritation, headache, drowsiness, dizziness, loss of coordination, blood disorders

LONG TERM EXPOSURE: irritation, headache, drowsiness, dizziness, loss of coordination, kidney damage, liver damage, blood disorders

SKIN CONTACT:

SHORT TERM EXPOSURE: irritation, allergic reactions, absorption may occur, headache, drowsiness, dizziness, loss of coordination, kidney damage, nerve damage

LONG TERM EXPOSURE: irritation, allergic reactions, absorption may occur, headache, drowsiness,

dizziness, loss of coordination, kidney damage

EYE CONTACT:

SHORT TERM EXPOSURE: irritation

LONG TERM EXPOSURE: irritation

INGESTION:

SHORT TERM EXPOSURE: irritation, headache, drowsiness, dizziness, loss of coordination, kidney damage, nerve damage, coma

LONG TERM EXPOSURE: irritation, kidney damage

3. COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: NON-HAZARDOUS SUBSTANCE

CAS NUMBER: Not assigned.

EC NUMBER: Not assigned.

PERCENTAGE: 60-100

EC CLASSIFICATION: No classification assigned.

COMPONENT: ETHYLENE GLYCOL

CAS NUMBER: 107-21-1

EC NUMBER (EINECS): 203-473-3

PERCENTAGE: 10-30

EC CLASSIFICATION: Xn

RISK PHRASES: 22

COMPONENT: ACETIC ACID

CAS NUMBER: 64-19-7

EC NUMBER (EINECS): 200-580-7

PERCENTAGE: 3-7

EC CLASSIFICATION: Flammable; C

RISK PHRASES: 10-35

4. FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

SKIN CONTACT: Wash contaminated areas with soap and water. Thoroughly clean and dry contaminated clothing before reuse. Get medical attention, if needed.

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

INGESTION: If a large amount is swallowed, get medical attention.

NOTE TO PHYSICIAN: For inhalation, consider oxygen.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Slight fire hazard.

EXTINGUISHING MEDIA: carbon dioxide, regular dry chemical, regular foam, water

FIRE FIGHTING: Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products.

SENSITIVITY TO MECHANICAL IMPACT: Not sensitive

SENSITIVITY TO STATIC DISCHARGE: Not sensitive

FLASH POINT: not flammable

HAZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition or combustion products: oxides of carbon

6. ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:

Stop leak if possible without personal risk. Small spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.

7. HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Store between 2 C and 8 C. Protect from freezing. Avoid direct sunlight. See original container for storage recommendations. Keep separated from incompatible substances.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

ETHYLENE GLYCOL:

50 ppm (125 mg/m³) OSHA ceiling (vacated by 58 FR 35338, June 30, 1993)

100 mg/m³ ACGIH ceiling (aerosol)

26 mg/m³ (10 ml/m³) DFG MAK (peak limitation category - I, with excursion factor of 2) (cutaneous absorption danger)

52 mg/m³ (20 ppm) EC OEL TWA (skin) (IOELV)

104 mg/m³ (40 ppm) EC OEL STEL (skin) (IOELV)

10 mg/m³ UK WEL TWA (particulate) (skin)

52 mg/m³ (20 ppm) UK WEL TWA (vapor) (skin)

104 mg/m³ (40 ppm) UK WEL STEL (vapor) (skin)

ACETIC ACID:

10 ppm (25 mg/m³) OSHA TWA

10 ppm ACGIH TWA
15 ppm ACGIH STEL
10 ppm (25 mg/m³) NIOSH recommended TWA 10 hour(s)
15 ppm (37 mg/m³) NIOSH recommended STEL
25 mg/m³ (10 ml/m³) DFG MAK (peak limitation category - I, with excursion factor of 2)

VENTILATION: Provide adequate ventilation. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Safety glasses or goggles are recommended when there is a potential for eye contact. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Lab coat or apron.

GLOVES: Wear appropriate chemical resistant gloves.

PROTECTIVE MATERIAL TYPES: vinyl, latex

RESPIRATOR: No respirator is required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: liquid

APPEARANCE: dark

COLOR: red or purple

ODOR: faint odor, vinegar odor

BOILING POINT: Not available

FREEZING POINT: Not available

VAPOR PRESSURE: Not available

VAPOR DENSITY: Not available

SPECIFIC GRAVITY: Not available

WATER SOLUBILITY: miscible

PH: acidic

VOLATILITY: Not available

ODOR THRESHOLD: Not available

EVAPORATION RATE: Not available

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available

10. STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials. Avoid direct sunlight.

INCOMPATIBILITIES: oxidizing materials, acids, alkalis

HAZARDOUS DECOMPOSITION:

Thermal decomposition or combustion products: oxides of carbon

POLYMERIZATION: Will not polymerize.

11. TOXICOLOGICAL INFORMATION

ETHYLENE GLYCOL:

IRRITATION DATA: 0.012 percent/3 day(s) eyes-rat; 555 mg open skin-rabbit mild; 500 mg/24 hour(s) eyes-rabbit mild; 100 mg/1 hour(s) eyes-rabbit mild; 0.012 ppm/3 day(s) eyes-rabbit; 1440 mg/6 hour(s) eyes-rabbit moderate

TOXICITY DATA: 9530 ul/kg skin-rabbit LD50; 4700 mg/kg oral-rat LD50

CARCINOGEN STATUS: ACGIH: A4 -Not Classifiable as a Human Carcinogen

LOCAL EFFECTS:

Irritant: inhalation, skin, eye

ACUTE TOXICITY LEVEL:

Moderately Toxic: ingestion

Slightly Toxic: dermal absorption

TARGET ORGANS: nervous system, kidneys

ACETIC ACID:

IRRITATION DATA: 50 mg/24 hour(s) skin-human mild; 525 mg open skin-rabbit severe; 50 mg/24 hour(s) skin-rabbit mild; 5 mg/30 second(s) rinsed eyes-rabbit mild

TOXICITY DATA: 5620 ppm/1 hour(s) inhalation-mouse LC50; 1060 ul/kg skin-rabbit LD50; 3310 mg/kg oral-rat LD50

LOCAL EFFECTS:

Corrosive: inhalation, skin, eye, ingestion

ACUTE TOXICITY LEVEL:

Moderately Toxic: inhalation, dermal absorption, ingestion

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: eye disorders, respiratory disorders, skin disorders and allergies

12. ECOLOGICAL INFORMATION

Not available

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: Not regulated.

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: Not regulated.

LAND TRANSPORT ADR: Not regulated.

LAND TRANSPORT RID: Not regulated.

AIR TRANSPORT IATA: Not regulated.

AIR TRANSPORT ICAO: Not regulated.

MARITIME TRANSPORT IMDG: Not regulated.

15. REGULATORY INFORMATION

U.S. REGULATIONS:

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):

ETHYLENE GLYCOL: 5000 LBS RQ

ACETIC ACID: 5000 LBS RQ

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart B): Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355 Subpart C): Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370 Subparts B and C):

ACUTE: Yes

CHRONIC: Yes

FIRE: No

REACTIVE: No

SUDDEN RELEASE: No

SARA TITLE III SECTION 313 (40 CFR 372.65):

ETHYLENE GLYCOL

STATE REGULATIONS:

California Proposition 65: Not regulated.

CANADIAN REGULATIONS:

WHMIS CLASSIFICATION: D2B.

EUROPEAN REGULATIONS:

EC CLASSIFICATION (CALCULATED):

No classification assigned.

16. OTHER INFORMATION

EC RISK PHRASES:

R 10	Flammable.
R 22	Harmful if swallowed.
R 35	Causes severe burns.

“RTECS®” is a United States trademark owned and licensed under authority of the U.S. Government, by and through Symyx Software, Inc. Portions ©Copyright 2001, U.S. Government. All rights reserved.

Limitations: The information and recommendations set forth in this MSDS are believed to be correct as of this date. Ventana Medical Systems, Inc. makes no warranty with respect to the content of this MSDS and disclaims all liability from reliance thereon.