a member of the Roche Group

# Material Safety Data Sheet

**Material Name: Steiner II Fixer** **MSDS ID: VEN-148**

## * * * Section 1 - Chemical Product and Company Identification* * *

**Manufacturer Information**

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

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

## Material Name: Steiner II Fixer

**Product Number(s)**

1504666, 06525768001, 860-030, 06521894001

**Product Use**

clinical

## * * * Section 2 - Hazards Identification* * *

**NFPA Ratings: Health:** 2 **Fire:** 1 **Reactivity:** 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

**Preparation**

This material is not classified.

**EMERGENCY OVERVIEW**

**Physical Form:** liquid

**Major Health Hazards:** respiratory tract irritation, skin irritation, eye irritation, liver damage, central nervous system depression, nerve damage

## POTENTIAL HEALTH EFFECTS

**Inhalation**

**Short Term:** cough, irritation, changes in blood pressure, ringing in the ears, nausea, vomiting, constipation, stomach pain, chest pain, difficulty breathing, irregular heartbeat, headache, drowsiness, dizziness, disorientation, hallucinations, tingling sensation, pain in extremities, tremors, loss of coordination, internal bleeding, blood disorders, kidney damage, nerve damage, unconsciousness, coma

**Long Term:** irritation, sensitivity to light, changes in blood pressure, nausea, vomiting, diarrhea, stomach pain, difficulty breathing, irregular heartbeat, headache, drowsiness, fatigue, dizziness, disorientation, pain in extremities, tremors, loss of coordination, visual disturbances, dilated pupils or pin-point pupils, blindness, bluish skin color, lung congestion, heart damage, kidney damage, liver damage, nerve damage, reproductive effects, effects on the brain, convulsions, unconsciousness, coma

**Skin**

**Short Term:** irritation, absorption may occur, changes in blood pressure, ringing in the ears, nausea, vomiting, constipation, stomach pain, chest pain, difficulty breathing, irregular heartbeat, headache, drowsiness, dizziness, disorientation, hallucinations, tingling sensation, pain in extremities, tremors, loss of coordination, internal bleeding, blood disorders, kidney damage, nerve damage, unconsciousness, coma

**Long Term:** irritation, absorption may occur, headache, drowsiness, dizziness, loss of coordination, blood disorders, nerve damage

**Eye**

**Short Term:** irritation, eye damage

**Long Term:** irritation, eye damage

**Ingestion**

**Short Term:** irritation, changes in body temperature, nausea, vomiting, diarrhea, digestive disorders, irregular heartbeat, headache, drowsiness, dizziness, loss of coordination, disorientation, visual disturbances, dilated pupils, bluish skin color, convulsions, coma

**Long Term:** irritation, changes in blood pressure, diarrhea, loss of appetite, weight loss, irregular heartbeat, headache, drowsiness, dizziness, disorientation, pain in extremities, tremors, loss of coordination, visual disturbances, blindness, bluish skin color, blood disorders, heart damage, kidney damage, liver damage, nerve damage, reproductive effects, birth defects, brain damage

**OSHA Regulatory Status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

## * * * Section 3 - Composition/Information on Ingredients* * *

| CAS # | Component / EU Number | Percent | Symbol(s) | Risk Phrase(s) |
|---|---|---|---|---|
| Not Available | Non-hazardous Components | 60-100 | --- | --- |
| Mixture | Reagent Alcohol | 15-40 | --- | --- |
| 64-17-5 | Ethyl alcohol (Part of Reagent Alcohol) 200-578-6 | 15-40 | F | R:11 |
| 67-56-1 | Methyl alcohol (Part of Reagent Alcohol) 200-659-6 | 1-5 | F T | R:11-23/24/25-39/23/24/25 |
| 67-63-0 | Isopropyl alcohol (Part of Reagent Alcohol) 200-661-7 | 1-5 | F Xi | R:11-36-67 |

## * * * Section 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**

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

**Eyes**

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 Physicians**

For inhalation, consider oxygen.

## * * * Section 5 - Fire-Fighting Measures* * *

See Section 9 for Flammability Properties

**Flammable Properties**

Slight fire hazard.

**Extinguishing Media**

regular dry chemical, carbon dioxide, regular foam, water

**Protective Equipment and Precautions for Firefighters**

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

**Fire Fighting Measures**

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

**Hazardous Combustion Products**

**Thermal decomposition or combustion products:** oxides of carbon, oxides of sodium, oxides of sulfur

**Sensitivity to Mechanical Impact**

Not sensitive

**Sensitivity to Static Discharge**

Not sensitive

## * * * Section 6 - Accidental Release Measures* * *

**Occupational Spill/Release**

Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.

## * * * Section 7 - Handling and Storage* * *

**Handling Procedures**

Wash thoroughly after handling.

**Storage Procedures**

Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.

## * * * Section 8 - Exposure Controls/Personal Protection* * *

**Exposure Limits**

**Ethyl alcohol (Part of Reagent Alcohol) (64-17-5)**

| | |
|---|---|
| **ACGIH:** | 1000 ppm STEL |
| **NIOSH:** | 1000 ppm TWA; 1900 mg/m3 TWA<br>3300 ppm IDLH (10% LEL) |
| **OSHA:** | 1000 ppm TWA; 1900 mg/m3 TWA<br>1000 ppm TWA; 1900 mg/m3 TWA |
| **Austria:** | 2000 ppm STEL (3 X 60 min); 3800 mg/m3 STEL (3 X 60 min)<br>1000 ppm TWA; 1900 mg/m3 TWA |
| **Belgium:** | 1000 ppm TWA; 1907 mg/m3 TWA |
| **Denmark:** | 1000 ppm TWA; 1900 mg/m3 TWA |
| **Finland:** | 1300 ppm STEL; 2500 mg/m3 STEL<br>1000 ppm TWA; 1900 mg/m3 TWA |
| **France:** | 5000 ppm STEL; 9500 mg/m3 STEL<br>1000 ppm TWA; 1900 mg/m3 TWA |
| **Germany:** | 500 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 2); 960 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 2) |
| **Germany (DFG):** | 500 ppm TWA MAK; 960 mg/m3 TWA MAK<br>1000 ppm Peak; 1920 mg/m3 Peak |
| **Greece:** | 1000 ppm TWA; 1900 mg/m3 TWA |
| **Ireland:** | 1000 ppm TWA; 1900 mg/m3 TWA |
| **Netherlands:** | 1900 mg/m3 STEL<br>260 mg/m3 TWA<br>skin notation |
| **Portugal:** | 1000 ppm TWA [VLE-MP] |
| **Spain:** | 1000 ppm TWA [VLA-ED] (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary o biocide compound); 1910 mg/m3 TWA [VLA-ED] (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary o biocide compound) |
| **Sweden:** | 500 ppm LLV; 1000 mg/m3 LLV<br>1000 ppm STV; 1900 mg/m3 STV |
| **United Kingdom:** | 3000 ppm STEL (calculated); 5760 mg/m3 STEL (calculated)<br>1000 ppm TWA; 1920 mg/m3 TWA |

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

| | |
|---|---|
| **ACGIH:** | 200 ppm TWA<br>400 ppm STEL<br>40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific) |
| **NIOSH:** | 400 ppm TWA; 980 mg/m3 TWA<br>500 ppm STEL; 1225 mg/m3 STEL<br>2000 ppm IDLH (10% LEL) |
| **OSHA:** | 400 ppm TWA; 980 mg/m3 TWA<br>500 ppm STEL; 1225 mg/m3 STEL<br>400 ppm TWA; 980 mg/m3 TWA |
| **Austria:** | 800 ppm STEL (4 X 15 min); 2000 mg/m3 STEL (4 X 15 min); 800 ppm STEL (STEL for large casting, 4 X 30 min); 2000 mg/m3 STEL (STEL for large casting, 4 X 30 min)<br>200 ppm TWA; 500 mg/m3 TWA (short time value for large casting) |
| **Belgium:** | 400 ppm STEL; 1000 mg/m3 STEL<br>200 ppm TWA; 500 mg/m3 TWA |
| **Denmark:** | 200 ppm TWA; 490 mg/m3 TWA |
| **Finland:** | 250 ppm STEL; 620 mg/m3 STEL<br>200 ppm TWA; 500 mg/m3 TWA |
| **France:** | 400 ppm STEL; 980 mg/m3 STEL |
| **Germany:** | 200 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 2); 500 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are |

observed, exposure factor 2)

**Germany (DFG):** 200 ppm TWA MAK; 500 mg/m3 TWA MAK
400 ppm Peak; 1000 mg/m3 Peak

**Greece:** 500 ppm STEL; 1225 mg/m3 STEL
400 ppm TWA; 980 mg/m3 TWA

**Ireland:** 400 ppm STEL
200 ppm TWA
Potential for cutaneous absorption

**Japan** 400 ppm Ceiling; 980 mg/m3 Ceiling

**Portugal:** 200 ppm TWA [VLE-MP]
400 ppm STEL [VLE-CD

**Spain:** 400 ppm STEL [VLA-EC]; 1000 mg/m3 STEL [VLA-EC]
200 ppm TWA [VLA-ED] (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary o biocide compound); 500 mg/m3 TWA [VLA-ED] (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary o biocide compound)

**Sweden:** 150 ppm LLV; 350 mg/m3 LLV
250 ppm STV; 600 mg/m3 STV

**United Kingdom:** 500 ppm STEL; 1250 mg/m3 STEL
400 ppm TWA; 999 mg/m3 TWA

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

**ACGIH:** 200 ppm TWA
250 ppm STEL
Skin - potential significant contribution to overall exposure by the cutaneous route
15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)

**NIOSH:** 200 ppm TWA; 260 mg/m3 TWA
250 ppm STEL; 325 mg/m3 STEL
Potential for dermal absorption
6000 ppm IDLH

**OSHA:** 200 ppm TWA; 260 mg/m3 TWA
250 ppm STEL; 325 mg/m3 STEL
Prevent or reduce skin absorption
200 ppm TWA; 260 mg/m3 TWA

**EEC:** 200 ppm TWA; 260 mg/m3 TWA
Possibility of significant uptake through the skin

**Austria:** 800 ppm STEL (4 X 15 min); 1040 mg/m3 STEL (4 X 15 min)
200 ppm TWA; 260 mg/m3 TWA
skin notation

**Belgium:** 250 ppm STEL; 333 mg/m3 STEL
200 ppm TWA; 266 mg/m3 TWA
Skin

**Denmark:** 200 ppm TWA; 260 mg/m3 TWA
Potential for cutaneous absorption

**Finland:** 250 ppm STEL; 330 mg/m3 STEL
200 ppm TWA; 270 mg/m3 TWA
Potential for cutaneous absorption

**France:** 1000 ppm STEL; 1300 mg/m3 STEL
200 ppm TWA (restrictive limit); 260 mg/m3 TWA (restrictive limit)
Risk of cutaneous absorption

**Germany:** 200 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 4); 270 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when MAK and BAT values are observed, exposure factor 4)
skin notation

**Germany (DFG):** 200 ppm TWA MAK; 270 mg/m3 TWA MAK
800 ppm Peak; 1080 mg/m3 Peak
skin notation

**Greece:** 250 ppm STEL; 325 mg/m3 STEL
200 ppm TWA; 260 mg/m3 TWA

| | |
|---|---|
| | skin - potential for cutaneous absorption |
| **Ireland:** | 200 ppm TWA; 260 mg/m3 TWA<br>Potential for cutaneous absorption |
| **Italy:** | 200 ppm TWA; 260 mg/m3 TWA<br>skin - potential for cutaneous absorption |
| **Japan** | 200 ppm OEL; 260 mg/m3 OEL<br>May cause substantial skin absorption |
| **Netherlands:** | 133 mg/m3 TWA; 100 ppm TWA<br>skin notation |
| **Portugal:** | 200 ppm TWA [VLE-MP]<br>250 ppm STEL [VLE-CD<br>skin - potential for cutaneous exposure |
| **Spain:** | 200 ppm TWA [VLA-ED] (indicative limit value); 266 mg/m3 TWA [VLA-ED] (indicative limit value)<br>skin - potential for cutaneous exposure |
| **Sweden:** | 200 ppm LLV; 250 mg/m3 LLV<br>250 ppm STV; 350 mg/m3 STV<br>Skin notation |
| **United Kingdom:** | 250 ppm STEL; 333 mg/m3 STEL<br>200 ppm TWA; 266 mg/m3 TWA<br>Potential for cutaneous absorption |

**Ventilation**

Provide adequate ventilation. Ensure compliance with applicable exposure limits.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eyes/Face**

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.

**Protective Clothing**

Lab coat or apron.

**Glove Recommendations**

Wear appropriate chemical resistant gloves.

**Respiratory Protection**

No respirator is required under normal conditions of use.

## * * * Section 9 - Physical and Chemical Properties* * *

| | | | |
|---|---|---|---|
| **Physical State:** | Liquid | **Appearance:** | liquid |
| **Physical Form:** | liquid | **Odor:** | Not available |
| **Odor Threshold:** | Not available | **pH:** | 6.3 |
| **Melting/Freezing Point:** | Not available | **Boiling Point:** | Not available |
| **Decomposition:** | Not available | **Flash Point:** | No data available |
| **Evaporation Rate:** | Not available | **LEL:** | Not available |
| **UEL:** | Not available | **Vapor Pressure:** | Not available |
| **Vapor Density (air = 1):** | Not available | **Density:** | 0.9735 g/mL |
| **Specific Gravity (water = 1):** | Not available | **Water Solubility:** | miscible |
| **Log KOW:** | Not available | **Coeff. Water/Oil Dist.:** | Not available |
| **Auto Ignition:** | Not available | **Viscosity:** | Not available |
| **Volatility:** | Not available | | |

## * * * Section 10 - Stability and Reactivity* * *

**Chemical Stability**

Stable at normal temperatures and pressure.

**Conditions to Avoid**

Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

**Materials to Avoid**

acids, amines, bases, combustible materials, halocarbons, halogens, metal carbide, metal oxides, metal salts, metals, oxidizing materials, peroxides

**Decomposition Products**

**Thermal decomposition or combustion products:** oxides of carbon, oxides of sodium, oxides of sulfur

**Possibility of Hazardous Reactions**

Will not polymerize.

## * * * Section 11 - Toxicological Information* * *

**Acute and Chronic Toxicity**

**Component Analysis - LD50/LC50**

The components of this material have been reviewed in various sources and the following selected endpoints are published:

**Ethyl alcohol (Part of Reagent Alcohol) (64-17-5)**

Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

Inhalation LC50 Rat 72.6 mg/L 4 h; Oral LD50 Rat 4396 mg/kg; Dermal LD50 Rat 12800 mg/kg; Dermal LD50 Rabbit 12870 mg/kg

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

Inhalation LC50 Rat 83.2 mg/L 4 h; Inhalation LC50 Rat 64000 ppm 4 h; Oral LD50 Rat 5628 mg/kg; Dermal LD50 Rabbit 15800 mg/kg

**RTECS Acute Toxicity (selected)**

The components of this material have been reviewed, and RTECS publishes the following endpoints:

**Ethyl alcohol (Part of Reagent Alcohol) (64-17-5)**

**Inhalation:** 124700 mg/m3/4 hour Inhalation Rat LC50; 5900 mg/m3/6 hour Inhalation Rat LC50; 20000 ppm/10 hour Inhalation Rat LC50

**Oral:** 15010 mg/kg Oral Rat LD50; 7 gm/kg Oral Rat LD50; 7060 mg/kg Oral Rat LD50

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

**Inhalation:** 16000 ppm/8 hour Inhalation Rat LC50; 72600 mg/m3 Inhalation Rat LC50

**Oral:** 5000 mg/kg Oral Rat LD50; 5045 mg/kg Oral Rat LD50

**Skin:** 12800 mg/kg Skin Rabbit LD50

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

**Inhalation:** 64000 ppm/8 hour Inhalation Rat LC50; 145000 ppm/1 hour Inhalation Rat LC50; 64000 ppm/4 hour Inhalation Rat LC50

**Oral:** 5600 mg/kg Oral Rat LD50

**Skin:** 15800 mg/kg Skin Rabbit LD50

**Acute Toxicity Level**

**Ethyl alcohol (Part of Reagent Alcohol) (64-17-5)**

**Slightly Toxic:** inhalation, ingestion

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

**Moderately Toxic:** inhalation, ingestion

**Slightly Toxic:** dermal absorption

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

**Slightly Toxic:** dermal absorption, ingestion

**Non Toxic:** inhalation

**Irritation/Corrosivity**

respiratory tract irritation, skin irritation, eye irritation

**RTECS Irritation**

The components of this material have been reviewed, and RTECS publishes the following endpoints:

**Ethyl alcohol (Part of Reagent Alcohol) (64-17-5)**

500 mg/24 hour Eyes Rabbit mild; 100 uL Eyes Rabbit moderate; 100 mg/4 second(s) Eyes Rabbit moderate; 500 mg Eyes Rabbit severe; 400 mg/open Skin Rabbit mild; 20 mg/24 hour Skin Rabbit moderate

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

100 mg/24 hour Eyes Rabbit moderate; 10 mg Eyes Rabbit moderate; 100 mg Eyes Rabbit severe; 500 mg Skin Rabbit mild

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

100 mg/24 hour Eyes Rabbit moderate; 40 mg Eyes Rabbit moderate; 20 mg/24 hour Skin Rabbit moderate

**Local Effects**

**Ethyl alcohol (Part of Reagent Alcohol) (64-17-5)**

**Irritant:** inhalation, skin, eye

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

**Irritant:** inhalation, eye

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

**Irritant:** skin, eye

**Target Organs**

**Ethyl alcohol (Part of Reagent Alcohol) (64-17-5)**

central nervous system, liver

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

central nervous system

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

nervous system

**Carcinogenicity**

**Component Carcinogenicity**

**Ethyl alcohol (Part of Reagent Alcohol) (64-17-5)**

**ACGIH:** A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

**OSHA:** Present

**IARC:** Monograph 100E [in preparation] (in alcoholic beverages); Monograph 96 [2010] (in alcoholic beverages) (Group 1 (carcinogenic to humans))

**Germany:** Category 5 (low carcinogenic potency)

**Netherlands:** Present

**Portugal:** A4 - Not Classifiable as a Human Carcinogen

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen

**IARC:** Monograph 71 [1999]; Supplement 7 [1987]; Monograph 15 [1977] (Group 3 (not classifiable))

**Portugal:** A4 - Not Classifiable as a Human Carcinogen

**Mutagenic**

No data available for the mixture.

**RTECS Mutagenic**

The components of this material have been reviewed, and RTECS publishes data for one or more components.

**Reproductive Effects**

No data available for the mixture.

**RTECS Reproductive Effects**

The components of this material have been reviewed, and RTECS publishes data for one or more components.

**Tumorigenic**

No data available for the mixture.

**RTECS Tumorigenic**

The components of this material have been reviewed, and RTECS publishes data for one or more components.

**Medical Conditions Aggravated by Exposure**

central nervous system disorders, eye disorders, kidney disorders, liver disorders, respiratory disorders, skin disorders and allergies

**Additional Data**

May cross the placenta. May be excreted in breast milk.

## * * * Section 12 - Ecological Information* * *

**Component Analysis - Aquatic Toxicity**

**Ethyl alcohol (Part of Reagent Alcohol) (64-17-5)**

**Fish:** 96 Hr LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through]

**Invertebrate:** 48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 24 Hr EC50 Daphnia magna: 10800 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static]

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

**Fish:** 96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 11130 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >1400000 µg/L

**Algae:** 96 Hr EC50 Desmodesmus subspicatus: >1000 mg/L; 72 Hr EC50 Desmodesmus subspicatus: >1000 mg/L

**Invertebrate:** 48 Hr EC50 Daphnia magna: 13299 mg/L

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

**Fish:** 96 Hr LC50 Pimephales promelas: 28200 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 19500 - 20700 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 18 - 20 mL/L [static]; 96 Hr LC50 Lepomis macrochirus: 13500 - 17600 mg/L [flow-through]

**Mobility**

No data available for the mixture.

**Persistence & Degradation**

No data available for the mixture.

**Bioaccumulative Potential**

No data available for the mixture.

## * * * Section 13 - Disposal Considerations* * *

**Disposal Methods**

Dispose in accordance with all applicable regulations.

**Component Waste Numbers**

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

**RCRA:** waste number U154 (Ignitable waste)

## * * * Section 14 - Transport Information* * *

**US DOT Information**

Not regulated.

**TDG Information**

Not regulated.

**ADR Information**

Not regulated.

**RID Information**

Not regulated.

**IATA Information**

Not regulated.

**ICAO Information**

Not regulated.

**IMDG Information**

Not regulated.

## * * * Section 15 - Regulatory Information* * *

**U.S. Federal Regulations**

This material contains one or more of the following chemicals required to be identified under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

**SARA 313:** 1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

**SARA 313:** 1.0 % de minimis concentration

**CERCLA:** 5000 lb final RQ; 2270 kg final RQ

**SARA 311/312**

**Acute Health:** Yes **Chronic Health:** Yes **Fire:** No **Pressure:** No **Reactive:** No

**U.S. State Regulations**

The following components appear on one or more of the following state hazardous substances lists:

| Component / EC Number | CAS | CA | MA | MN | NJ | PA |
|---|---|---|---|---|---|---|
| Ethyl alcohol (Part of Reagent Alcohol) | 64-17-5 | Yes | Yes | Yes | Yes | Yes |
| Isopropyl alcohol (Part of Reagent Alcohol) | 67-63-0 | Yes | Yes | Yes | Yes | Yes |
| Methyl alcohol (Part of Reagent Alcohol) | 67-56-1 | Yes | Yes | Yes | Yes | Yes |

**California Proposition 65**

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

**Canadian Regulations**

This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

**Canada WHMIS**

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

**Ethyl alcohol (Part of Reagent Alcohol) (64-17-5)**

0.1 %

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

1 %

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

1 %

**WHMIS Classification**

D2B.

**European Regulations**

This preparation has been classified for the European Union according to Annex VI Directives 67/548/EEC and 99/45/EC.

**Germany Water Classification**

**Ethyl alcohol (Part of Reagent Alcohol) (64-17-5)**

ID Number 96, hazard class 1 - low hazard to waters (footnote 10)

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

ID Number 135, hazard class 1 - low hazard to waters

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

ID Number 145, hazard class 1 - low hazard to waters

**EU Marking and Labelling**

This material is not classified.

**Japanese Regulations**

**Japan Designated Chemical Substances (PRTR Law)**

No components of this material are subject to reporting requirements as specified by the "Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management" nor are they included in the "Pollutant Release and Transfer Register (PRTR)" of designated chemicals.

**Japan Poisonous and Deleterious Substances**

The following components are specified as poisonous and deleterious substances, and are regulated by Japan under the Poisonous and Deleterious Substances Control Law.

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

Deleterious, 100%

**Industrial Safety and Health Law - Flammable Materials**

The following components are identified in Table 6-2 of the Enforcement Order of the Industrial Safety and Health Law which, if used in the workplace, require designation of an Operations Chief during confined space work and periodic machine inspections.

**Ethyl alcohol (Part of Reagent Alcohol) (64-17-5)**

Flammable substance

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

Flammable substance

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

Flammable substance

**Industrial Safety and Health Law - Label Disclosure**

This list contains those harmful substances present in this product whose names are to be indicated on a container label as specified by Article 18 of the Enforcement Order of the Industrial Safety and Health Law.

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

>1 % weight

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

>0.3 % weight

**Industrial Safety and Health Law - Organic Solvents**

The following components are identified in Table 6-2 of the Enforcement Order of the Industrial Safety and Health Law which, if used in the workplace, require designation of an Operations Chief during confined space work and periodic machine inspections.

**Isopropyl alcohol (Part of Reagent Alcohol) (67-63-0)**

Class 2

**Methyl alcohol (Part of Reagent Alcohol) (67-56-1)**

Class 2

## * * * Section 16 - Other Information* * *

**Key / Legend**

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

**Full text of R phrases in Section 3**

**R11** Highly flammable.
**R23/24/25** Toxic by inhalation, in contact with skin and if swallowed.
**R36** Irritating to eyes.
**R39/23/24/25** Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
**R67** Vapours may cause drowsiness and dizziness.

**Other Information**

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.



**New MSDS:** 10/15/2011

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