MILESTONE MEDICAL
6475 Technology Ave.
Suite F
Kalamazoo, MI 49009
Ph: 866.995.5300

ProWAVE

1. Identification

Product Name: ProWAVE
Item #:
Synonyms: N/A
Recommended Use: Fixation
Restrictions on Use: Not a beverage
Manufacturer/Supplier:
Milestone Medical
6475 Technology Avenue
Suite F
Kalamazoo, MI 49009
866-995-5300
In Case of Emergency:
Chemtrec US/Canada 1-800-424-9300

2. Hazards Identification

OSHA Hazard Classification(s):
Skin Irritation - Category 2
Eye Irritation - Category 2A
Specific Target Organ Toxicity (single exposure) - Category 1
Specific Target Organ Toxicity (repeated exposure) - Category 2
Flammable Liquids - Category 2

Signal Word: Danger

Hazard Statement(s): Causes skin irritation. Causes serious eye irritation. Causes damage to organs (lungs, kidneys, respiratory system). May cause damage to organs (respiratory system, central nervous system, liver, blood) through prolonged or repeated exposure. Highly flammable liquid and vapor.

Pictogram(s):

Precautionary Statement(s): Prevention: Wash body thoroughly after handling. Wear protective gloves. Wear eye protection, face protection. Do not breathe dust, vapors. Do not eat, drink or smoke when using this product. Keep away from heat sources and open flame. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting and equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Response: If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention. If exposed or concerned: Call a doctor. Call a doctor if you feel unwell. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: Use water, dry chemical, CO2 or foam to extinguish.

Storage: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container in accordance with local regulations.

Descriptions of Hazards not otherwise classified: N/A
Percent of mixture with unknown acute toxicity: N/A

3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Ethyl Alcohol Denatured	Ethanol	64-17-5	Trade Secret
Isopropyl Alcohol	Isopropanol	67-63-0	Trade Secret
Methyl Alcohol	Methanol	67-56-1	Trade Secret
Methyl Isobutyl Ketone	Hexone	108-10-1	Trade Secret
Isopropyl Alcohol	Isopropanol	67-63-0	Trade Secret

Cobalt Chloride Hexahydrate		7791-13-1	Trade Secret

4. First Aid Measures

Eye Contact: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

Inhalation: Vapor Harmful. Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

Ingestion: Poison. May be fatal or cause blindness if swallowed. If exposed: Call a doctor. Cannot be made nonpoisonous. Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Symptoms: Irritation eyes, nose, throat; headache, dizziness, drowsiness, lassitude (weakness, exhaustion), narcosis; cough; liver damage; anemia; reproductive, teratogenic effects.

Recommendations for immediate medical care/special treatment: Get medical advice/attention if you feel unwell.

5. Fire- Fighting Measures

Extinguishing Media: Dry chemical, carbon dioxide, alcohol foam. Use water spray to cool fire-exposed containers and disperse vapors.

Fire Hazards (Chemical): OSHA classified Flammable Liquid. Vapors are flammable.

Special Protective Equipment: Fire fighters should use self-contained breathing apparatus and protective clothing.

Precautions for Firefighters: Carbon monoxide and unidentified organic compounds may be formed during combustion. Vapors can travel distances to ignition source and flash back. Cool fire exposed containers with water. Fine mist or spray may be flammable at temperatures below the flash point. When heated above the flash point this material emits flammable vapors which, when mixed with air, can burn or be explosive.

6. Accidental Release Measures

Emergency Procedures: Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

Protective Equipment: See section 8

Environmental Precautions: Prevent release to the environment by using barriers.

Containment and Clean-Up Procedures: Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

7. Handling and Storage

Handling: Do not breathe vapors. Do not eat, drink or smoke when using this product. Keep away from heat, sparks, open flames, hot surfaces. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating, and 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. Store and use away from sources of ignition, heat, open flame. Store in tightly closed containers in a cool, dry, well-ventilated, fire-resistant area. Store away from oxidizing agents. Store between 20ºC and 30ºC.

8. Exposure Controls/Personal Protection

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS #	OSHA PEL TWA
Ethyl Alcohol	64-17-5	1000ppm
Isopropyl Alcohol	67-63-0	400ppm
Methyl Alcohol	67-56-1	200ppm
Methyl Isobutyl Ketone	108-10-1	100ppm (410 mg/m3)
Cobalt Chloride hexahydrate	7791-13-1	0.1 mg/m3 (as Co)

ACGIH Threshold Limit Values (TLVs):

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
Ethyl Alcohol	64-17-5	1000ppm	
Isopropyl Alcohol	67-63-0	400ppm (983 mg/m3)	500ppm (1230 mg/m3)
Methyl Alcohol	67-56-1	200ppm (262 mg/m3)	250ppm (328 mg/m3)
Methyl Isobutyl Ketone	108-10-1	50ppm	75ppm
Cobalt Chloride Hexahydrate	7791-13-1	0.02 mg/m3 (as Co)	

Engineering Controls: Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.
Personal Protective Measures: Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.
Special PPE Requirements: If ventilation hood not available wear respirator.

9. Physical and Chemical Properties Section

Appearance: Blue, Blue Liquid
Molecular Weight: N/A
Molecular Formula: N/A
pH: N/A
Boiling Point and Boiling Range: 173ºF
Melting Point/Freezing Point: N/A
Flash Point: About 12ºC
Specific Gravity/Relative Density: N/A
Odor: Characteristic alcohol odor
Odor Threshold: N/A
Color: Blue
Flammability (solid/gas): Emits flammable vapors, flammable liquid
Vapor Density: N/A
Upper/Lower flammability or explosive limits: N/A
Vapor Pressure: N/A
Evaporation Rate: N/A
Partition Coefficient: n-octanol/water: N/A
Viscosity: N/A
Auto-ignition temperature: 399ºC
Solubility: Miscible in water
Decomposition Temperature: N/A

10. Stability and Reactivity

Reactivity:
Chemical Stability: Stable
Conditions of Stability/Instability: Instable under heat
Stabilizers needed: None
Safety issue indicated by appearance change: Color will change from blue to pink in presence of water.
Other: N/A
Hazardous Reactions: N/A
Hazardous Polymerization: Does not occur
Conditions to avoid: Heat, open flame.

Classes of Incompatible Materials: Strong oxidizers, potassium dioxide, bromine pentafluoride, acetyl bromide, acetyl chloride, platinum, sodium

Hazardous Decomposition Products: Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

11. Toxicological Information

Likely Routes of Exposure

Eyes: Irritation.

Skin: Irritation.

Inhalation: Dizziness, headache, nausea, narcosis

Ingestion: May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys and cardiovascular system. Carcinogenic if ingested repeatedly over time (IARC List 1-Ethanol in alcoholic beverages)

Signs or Symptoms of Exposure: Irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough; liver damage; anemia; reproductive, teratogenic effects

Effects from short term exposure (delayed, immediate, chronic): May cause blindness, nausea, damage to gastrointestinal tract, liver, kidneys and cardiovascular system

Acute Toxicity (Numerical Measures): N/A

Carcinogenicity (NTP, IARC, OSHA): Not listed as a carcinogen.* *Note: Ethanol in alcoholic beverages is listed as IARC List 1 Carcinogenic to humans. Also contains less than 0.1% Cobalt Chloride Hexahydrate listed as IARC Group 2B (possibly carcinogenic to humans [cobalt and cobalt compounds, evaluated as a group])

12. Ecological Information

Ecotoxicity: Fish: Fathead Minnow: >1000 ppm; 96h; LC50Daphnia: >1000 ppm; 96h; LC50Fish: Gold orfe: 8970- 9280 ppm; 48h; This material is not expected to be toxic to aquatic life

Persistence and degradability: When released into the soil, this material is expected to quickly evaporate. When released into the soil, this material may leach into groundwater. When released into the soil, this material may biodegrade to a moderate extent. When released to water, this material is expected to quickly evaporate. When released into the water, this material is expected to have a half-life between 1 and 10 days. When released into water, this material may biodegrade to a moderate extent. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life between 1 and 10 days. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition.

Bioaccumulation Potential (octanol-water partition coefficient, BCF): LC50 IPA has a high biochemical oxygen demand and a potential to cause oxygen depletion in aqueous systems, a low potential to affect aquatic organisms, a low potential to affect secondary waste treatment microbial metabolism, a low potential to affect the germination of some plants, a high potential to biodegrade (low persistence) with unacclimated microorganisms from activated sludge. THOD: 2.40 g oxygen/gCOD: 2.23 g oxygen/gBOD-5: 1.19-1.72 g oxygen/g

Mobility in the soil: N/A

Adverse Environmental Effects: May have adverse environmental effects.

13. Disposal Considerations

Recommended Disposal Containers: Check with your local waste authorities*

Recommended Disposal Methods: Do not dispose of in drains, check with your local waste authorities.*

Physical/Chemical Properties affecting Disposal: See section 2 and section 9 applicable information.*

Special Precautions for Landfill and Incineration Activities: Check with your local waste authorities.*

Waste Stream: Consult your local or regional authorities.*

14. Transport Information

UN Number: UN1993

UN Proper Shipping Name: Flammable Liquid, n.o.s. (Ethanol)

Transport Hazard Class(es): 3

Packing Group Number: II

Environmental Hazards (IMDG code):
Marine Pollutant: No
Transport in Bulk (IBC Code): N/A
Special Transport Precautions: N/A

15. Regulatory Information

OSHA:
DOT:
EPA:
CPSC:

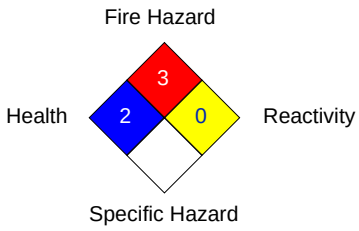
16. Other Information

Revision Date: 03/09/2018

NFPA

Health	2
Fire Hazard	3
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



HMIS

Health	2
Flammability	3
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	2
Flammability	3
Physical Hazard	0
Personal Protection	

Notice to Reader:

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