

MSDS**Material Safety Data****JorVel™****Jorgensen Laboratories, Inc.**1450 North Van Buren Avenue
Loveland, CO 80538**Acid Fast Stain Set**

Product Code: J326AS

Effective Date:

24 Hour Emergency Telephone:

CMB: (800)535-5053

SEP 21 2009

All non-emergency questions may be directed to customer service @ 1-970-669-2500 or fax 1-970-663-5042

HAZARDOUS INFORMATION**Product Identification****Acid Fast Stain Set Solution 1, Kinyoun Carbol Fuchsin**

Hazardous Ingredient: Phenol, 7.5%	CAS #: 108-95-2	Molecular Weight: 94.11
Ethanol, 15%	CAS #: 64-17-5	Molecular Weight: 46.07
Basic Fuchsin, 3%	CAS #: 569-61-9	Molecular Weight: 323.8

Chemical Formula: C₆H₅OH
 Chemical Formula: CH₃CH₂OH
 Chemical Formula: C₁₉H₁₈NCl

Acid Fast Stain Set Solution 2, Methanol

Hazardous Ingredient: Methanol, 100%
 Synonyms: methyl alcohol, wood alcohol, carbinol
 CAS #: 67-56-1
 Molecular Weight: 32.04
 Chemical Formula: CH₃OH

Acid Fast Stain Set Solution 3, Ethanol, 50%

Hazardous Ingredient: Denatured Ethanol, 50%
 Synonyms: doubly denatured ethanol, modified 3A alcohol, alcohol anhydrous
 CAS #: 64-17-5
 Molecular Weight: 46.07
 Chemical Formula: CH₃CH₂OH

Acid Fast Stain Set Solution 4, Sulfuric Acid, 1%

Hazardous Ingredient: Sulfuric Acid, 1%
 Synonyms: oil of vitriol, babcock acid.
 CAS #: 7664-93-9
 Molecular Weight: 98.08
 Chemical Formula: H₂SO₄

Acid Fast Stain Set Solution 5, Loeffler's Methylene Blue

Hazardous Ingredient: Denatured Ethanol, 23%
 Synonyms: doubly denatured ethanol, modified 3A alcohol, alcohol anhydrous
 CAS #: 64-17-5
 Molecular Weight: 46.07
 Chemical Formula: CH₃CH₂OH

HAZARDS IDENTIFICATION**Emergency Overview****Acid Fast Stain Set Solution 1, Kinyoun Carbol Fuchsin:**

POISON! DANGER! VAPOR HARMFUL MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CANNOT BE MADE NONPOISONOUS. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS. May stain skin and clothing.

SAFETY RATINGS: Health: 3, Severe (Poison) Reactivity: 0, None
 Flammability: 1, Slight Contact: 2, Moderate

Protective Equipment: Goggles, Lab Coat or Apron, Gloves, Local or General Exhaust Ventilation.

Storage Code: Blue: Health Hazard.

Acid Fast Stain Set Solution 2, Methanol:

POISON! DANGER! VAPOR HARMFUL MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CANNOT BE MADE NONPOISONOUS. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS.

Product #: J326AS

Acid Fast Stain Set

SAFETY RATINGS: Health: 3, Severe (Poison) Reactivity: 1, Slight
Flammability: 4, Extreme (Flammable) Contact: 1, Slight
Protective Equipment: Goggles, Lab Coat or Apron, Gloves, Local or General Exhaust Ventilation.
Storage Code: Red: Flammable Hazard.

Acid Fast Stain Set Solution 3, Ethanol, 50%:

POISON! DANGER! VAPOR HARMFUL MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CANNOT BE MADE NONPOISONOUS. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS.

SAFETY RATINGS: Health: 3, Severe (Poison) Reactivity: 1, Slight
Flammability: 2, Moderate (Flammable) Contact: 1, Slight
Protective Equipment: Safety Glasses or Goggles, Lab Coat or Apron, Gloves.
Storage Code: Red: Flammable Hazard.

Acid Fast Stain Set Solution 4, Sulfuric Acid, 1%:

HARMFUL IF SWALLOWED! As part of good industrial hygiene and safety procedure, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing.

SAFETY RATINGS: Health: 1, Slight Reactivity: 0, None
Flammability: 0, None Contact: 1, Slight
Protective Equipment: Safety Glasses or Goggles, Lab Coat or Apron, Gloves.
Storage Code: Green: Minimal Hazard.

Acid Fast Stain Set Solution 5, Loeffler's Methylene Blue:

POISON! DANGER! MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CANNOT BE MADE NONPOISONOUS. MAY CAUSE IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS. May stain skin and clothing.

SAFETY RATINGS: Health: 3, Severe (Poison) Reactivity: 1, Slight
Flammability: 2, Moderate (Flammable) Contact: 1, Slight
Protective Equipment: Safety Glasses or Goggles, Lab Coat or Apron, Gloves.
Storage Code: Red: Flammable Hazard.

Potential Health Effects

Acid Fast Stain Set Solutions 1, Kinyoun's; 2, Methanol; 3, Ethanol, 50%:

INHALATION:

Methanol & Ethanol: Slight irritants to the mucous membranes. Toxic effects exerted upon nervous system, particularly the optic nerve. Once absorbed into the body, it is very slowly eliminated. Symptoms of overexposure may include headache, drowsiness, nausea, vomiting, blurred vision, blindness, coma, and death. **Phenol:** The major hazard of Phenol is its ability to penetrate the skin rapidly, particularly when liquid, causing severe injury which can be fatal. Phenol also has a strong corrosive effect on body tissue causing severe chemical burns. Due to its local anesthetizing properties, skin burns may be painless.

INGESTION:

Methanol & Ethanol: Toxic! Symptoms parallel inhalation. Can intoxicate and cause blindness. Usual fatal dose: 100-125 milliliters. **Phenol:** Toxic! Symptoms may include burning pain in mouth and throat, abdominal pain, nausea, vomiting, headache, dizziness, muscular weakness, central nervous system effects, increase in heart rate, irregular breathing, coma, and possibly death. Acute exposure is also associated with kidney and liver damage. Ingestion of 1 gram has been lethal to humans.

SKIN CONTACT:

Methanol & Ethanol: Defatting agents and may cause skin to become dry and cracked. Skin absorption can occur, symptoms may parallel inhalation exposure. **Phenol:** May cause irritation or burns. Rapidly absorbed through the skin with systemic poisoning effects to follow, symptoms may parallel inhalation exposure.

EYE CONTACT:

Methanol & Ethanol: Irritant. Continued exposure may cause eye lesions. **Phenol:** Eye burns with redness, pain, blurred vision may occur. May cause severe damage and blindness.

Product #: J326AS

Acid Fast Stain Set

CHRONIC EXPOSURE:

Methanol & Ethanol: Marked impairment of vision and enlargement of the liver have been reported. Repeated or prolonged exposure may cause skin irritation. **Phenol:** Repeated exposure may cause symptoms described for acute poisoning as well as eye & skin discoloration.

AGGRAVATION of PRE-EXISTING CONDITIONS:

Persons with pre-existing skin, eye or central nervous system disorders, or impaired liver, kidney, or pulmonary function may be more susceptible to the effects of the substance.

Acid Fast Stain Set Solutions 4, Sulfuric Acid, 1% & 5, Loeffler's Methylene Blue:

INHALATION:

No known effects.

INGESTION:

May be harmful. May cause nausea, intoxication, blindness, headache and diarrhea.

SKIN CONTACT:

May cause irritation.

EYE CONTACT:

May cause irritation.

CHRONIC EXPOSURE:

No information available.

AGGRAVATION of PRE-EXISTING CONDITIONS:

No information available.

FIRST AID MEASURES

Acid Fast Stain Set Solutions 1, Kinyoun's; 2, Methanol; 3, Ethanol, 50%:

INHALATION:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

INGESTION:

Methanol & Ethanol: Induce vomiting immediately as directed by medical personnel. **Phenol:** Immediately administer castor oil or other vegetable oil. Never give anything by mouth to an unconscious person. Be ready to induce vomiting at the advice of physician or poison control center. Castor oil or vegetable oil dosage should be between 15 & 30 cc. Get medical attention immediately.

SKIN CONTACT:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical advise if irritation develops.

EYE CONTACT:

Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Acid Fast Stain Set Solutions 4, Sulfuric Acid, 1% & 5, Loeffler Methylene Blue:

INHALATION:

Remove to fresh air if effects occur.

INGESTION:

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

SKIN CONTACT:

Wash with mild soap and water. Get medical advise if irritation develops.

EYE CONTACT:

Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical advise if irritation develops.

FIRE FIGHTING MEASURES

FIRE:

Flash Point: No information available.

Autoignition Temperature: No information available.

Flammable Limits in Air % by Volume: No information available.

EXPLOSION:

Methanol: Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Moderate explosion hazard and dangerous fire hazard when exposed to heat, sparks or flames. Sensitive to static discharge.

FIRE EXTINGUISHING MEDIA:

Use alcohol foam, dry chemical or carbon dioxide.

SPECIAL INFORMATION:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

NFPA RATINGS: Health: 1 Flammability: 3 Reactivity: 0

ACCIDENTAL RELEASE MEASURES

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in the Personal Protection Section. Collect liquid in an appropriate container or absorb with a paper towel for proper disposal. Do not flush to sewer! Wash area with soap and water.

HANDLING AND STORAGE

Store in a cool, dry, ventilated area away from flame, sources of ignition and heat. Keep containers tightly closed and upright. Protect from physical damage. Keep out of direct sunlight and separate from incompatible materials. Storage and use areas should be non-smoking.

PERSONAL PROTECTION

Acid Fast Stain Set:**AIRBORNE EXPOSURE LIMITS, METHANOL:**

OSHA; Permissible Exposure Limit (PEL): 200 ppm (TWA).

ACGIH; Threshold Limit Value (TLV): 200 ppm (TWA).
200 ppm (STEL) skin.

AIRBORNE EXPOSURE LIMITS, ETHANOL:

OSHA; Permissible Exposure Limit (PEL): 1000 ppm (TWA).

ACGIH; Threshold Limit Value (TLV): 1000 ppm (TWA).

AIRBORNE EXPOSURE LIMITS, PHENOL:

OSHA; Permissible Exposure Limit (PEL): 5 ppm (TWA) skin.

ACGIH; Threshold Limit Value (TLV): 5 ppm (TWA) skin.

VENTILATION SYSTEM:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

PERSONAL RESPIRATORS (NIOSH) APPROVED:

If the exposure limit is exceeded, a full face piece respirator, air lined hood or full-face piece self-contained breathing apparatus. This substance has poor warning properties.

SKIN PROTECTION:

Wear protective clothing, gloves, lab coat or apron, as appropriate, to prevent skin contact.

EYE PROTECTION:

Use chemical safety glasses or goggles. Maintain eye wash fountain in work area.

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Characteristic.
ODOR:	Characteristic.
SOLUBILITY:	No information available.
SPECIFIC GRAVITY:	No information available.
pH:	No information available.
% VOLATILES by VOLUME:	No information available.
BOILING POINT:	No information available.
MELTING POINT:	No information available.
VAPOR DENSITY (Air =1):	No information available.
VAPOR PRESSURE (mm Hg):	No information available.
EVAPORATION RATE (BuAc=1):	No information available.

STABILITY AND REACTIVITY

STABILITY:

Stable under ordinary conditions of use and storage.

HAZARDOUS DECOMPOSITION PRODUCTS:

No information available.

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITIES:

Strong oxidizing agents and bases. Avoid heat, flame and other sources of ignition.

CONDITIONS to AVOID:

Heat, flames, ignition sources and incompatibles.

TOXICOLOGICAL INFORMATION

TOXICOLOGICAL DATA:

Methanol: Oral rat LD50: 5628 mg/kg; Inhalation rat LC50: 64000 ppm/4H; Skin rabbit LD50: 15800 mg/kg.

Irritation data: Standard Draize Test, Skin rabbit: 20 mg/24hr., moderate; Eye rabbit: 100 mg/24hr., moderate.

Investigated as a mutagen, reproductive effector.

Ethanol: Oral rat LD50: 7060 mg/kg; Inhalation rat LC50: 20000 ppm/10H; Irritation data: Standard Draize Test, Eye rabbit: 500 mg/24hr., moderate. Investigated as a mutagen, reproductive effector.

Phenol: Oral rat LD50: 317 mg/kg; Inhalation rat LC50: 316 mg/m³; Skin rabbit LD50: 630 mg/kg. Irritation data: Standard Draize Test, Skin rabbit: 500 mg/24hr., severe; Eye rabbit: 5 mg^{POS} rinse, mild. Investigated as a tumorigen, mutagen, reproductive effector.

ECOLOGICAL INFORMATION

When released into the soil, this material may leach into ground water.

ENVIRONMENTAL TOXICITY:

This material is expected to be toxic to aquatic life.

DISPOSAL INFORMATION

Dispose of container and unused contents in accordance with federal, state and local requirements. State and local disposal regulation may differ from federal disposal regulations.

OTHER INFORMATION

Acid Fast Stain Set Solution 2, Methanol:

TRANSPORT (Land, DOT):

Methanol, 3, UN1230, II

Acid Fast Stain Set Solutions 3, Ethanol 50%:

TRANSPORT (Land, DOT):

Alcohols, n.o.s. (denatured ethanol), 3, 1987, II

Acid Fast Stain Set Solutions 5, Leoffler's Methylene Blue:

TRANSPORT (Land, DOT):

Alcohols, n.o.s. (denatured ethanol), 3, 1987, III

Acid Fast Stain Set Solutions 1, Kinyoun Carbol Fuchsin & 4, Sulfuric Acid 1%:

TRANSPORT (Land, DOT):

Not Regulated

PRODUCT USE:

Laboratory Reagent.

Jorgensen Laboratories, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

JORGENSEN LABORATORIES, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS, ACCORDINGLY, JORGENSEN LABORATORIES, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.