

**MSDS****Material Safety Data****JORVEL™**

**Jorgensen Laboratories, Inc.**  
 1450 North Van Buren Avenue  
 Loveland, CO 80538

**Dip Quick Stain Set**

Product Codes: J322 &amp; J322A

Effective Date:

24 Hour Emergency Telephone:

CMB: (800)636-5053

**OCT 22 2009**

All non-emergency questions may be directed to customer service @ (970)669-2500 or fax (970)663-6042

**2. COMPOSITION and INFORMATION on HAZARDOUS INGREDIENTS**Fixative, #1 (J-322-1)

<u>Ingredients</u>	<u>CAS#</u>	<u>Formula</u>	<u>Formula Weight</u>	<u>Hazardous</u>	<u>% by Weight</u>
Methanol	67-56-1	CH <sub>3</sub> OH	32.04	Yes	>99.9

Eosin, #2 (J-322-2) & Thiazine, #3 (J-322-3)

<u>Ingredients</u>	<u>CAS#</u>	<u>Formula</u>	<u>Formula Weight</u>	<u>Hazardous</u>	<u>% by Weight</u>
Sodium Azide	26628-22-8	NaN <sub>3</sub>	65.01	Yes	0.01%

**3. HAZARDS IDENTIFICATION**Fixative, #1 (J-322-1):

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

**SAFETY RATINGS:** Health: 3, Severe      Reactivity: 1, Slight  
 Flammability: 3, Severe (Flammable)      Contact: 3, Severe

**Protective Equipment:** Chemical Safety Glasses/Goggles, Lab Coat/Apron, Gloves, Local/General Ventilation  
**Storage Code:** Red: Flammable

Eosin, #2 (J-322-2) & Thiazine, #3 (J-322-3):

**WARNING! MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT. HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN. CONTAINS 0.01% SODIUM AZIDE. SODIUM AZIDE MAY REACT WITH LEAD AND COPPER PLUMBING TO FORM EXPLOSIVE METAL AZIDES.**

**SAFETY RATINGS:** Health: 2, Moderate      Reactivity: 1, Slight  
 Flammability: 0, None      Contact: 1, Slight

**Protective Equipment:** Chemical Safety Glasses/Goggles, Lab Coat/Apron, Gloves, Local/General Ventilation  
**Storage Code:** Green: General

Potential Health Effects:Fixative, #1 (J-322-1):**INHALATION:**

A slight irritant 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. A person may get better but then worse again up to 30 hours later.

**INGESTION:**

Toxic! Methyl Alcohol can intoxicate and cause blindness. Usual fatal dose: 100 - 125 milliliters of Methanol. 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.

**SKIN CONTACT:**

Methyl Alcohol is a defatting agent and may cause skin to become dry and cracked. Skin absorption can occur, symptoms may parallel ingestion exposure.

**EYE CONTACT:**

Can cause irritation. Splashes may cause temporary pain and blurred vision. Continued exposure may cause eye lesions.

**POTENTIAL CHRONIC HEALTH EFFECTS:**

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Marked impairment of vision and enlargement of the liver have been reported. Repeated or prolonged exposure may cause skin irritation.

### **MEDICAL CONDITIONS GENERALLY AGGRAVATED by EXPOSURE:**

Persons with pre-existing skin disorders or eye problems or impaired liver or kidney function may be more susceptible to the effects of the substance.

### **Eosin, #2 (J-322-2) & Thiazine, #3 (J-322-3):**

#### **INHALATION:**

May cause irritation.

#### **INGESTION:**

May be harmful or fatal. May cause nausea, vomiting, diarrhea and possible damage to kidneys and thyroid.

#### **SKIN CONTACT:**

May cause irritation.

#### **EYE CONTACT:**

May cause irritation.

#### **POTENTIAL CHRONIC HEALTH EFFECTS:**

No information found.

### **MEDICAL CONDITIONS GENERALLY AGGRAVATED by EXPOSURE:**

No information found.

## **4. FIRST AID MEASURES**

### **Fixative, #1 (J-322-1):**

#### **INHALATION:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms occur, get medical attention.

#### **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 while removing contaminated clothing. If irritation develops, get medical attention.

#### **EYE CONTACT:**

Check for and remove contact lenses. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. If irritation develops, get medical attention.

### **Eosin, #2 (J-322-2) & Thiazine, #3 (J-322-3):**

#### **INHALATION:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, administer oxygen. If symptoms occur, get medical attention.

#### **INGESTION:**

Give several glasses of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

#### **SKIN CONTACT:**

Wash with mild soap and water while removing contaminated clothing. If irritation develops, get medical attention.

#### **EYE CONTACT:**

Check for and remove contact lenses. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. If irritation develops, get medical attention.

## **5. FIRE FIGHTING MEASURES**

### **For Methanol (Fixative, J-322-1):**

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

#### **FIRE:**

Flash point: 12°C (54°F) CC

Autoignition temperature: 464°C (867°F)

Flammable limits in air % by volume: lel: 6.0, uel: 36

Flammable Liquid and Vapor!

#### **EXPLOSION:**

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. (Water may be ineffective).

#### **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. Use water spray to blanket fire, cool fire exposed containers, and to flush non-ignited spills or vapors away from fire. Vapors can flow along surfaces to distant ignition source and flash back.

## 6. ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Ventilate area of leak or spill. Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Wear appropriate personal protective equipment as specified in the Exposure Control and Personal Protection Section 8. Use non sparking tools and equipment. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e.g. vermiculite, dry sand, earth), and place in a suitable container for reclamation or disposal. Do not use combustible materials, such as sawdust. Do not flush to sewer. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800)424-8802.

## 7. HANDLING and STORAGE

Store in a cool, dry, ventilated area away from flame, sources of ignition, heat and incompatible materials. Keep containers tightly closed and upright. Protect from physical damage. Keep out of direct sunlight and separate from incompatible materials. Use non sparking tools and equipment including explosion proof ventilation. When opening metal containers use non-sparking tools because flammable vapors may be present. Containers should be bonded and grounded for transfers to avoid static sparks. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquids); observe all warnings and precautions listed for the product. Storage and use areas should be non-smoking. Wash thoroughly after handling.

## 8. EXPOSURE CONTROL and PERSON PROTECTION

For Methanol (Fixative, J-322-1):

### EXPOSURE LIMITS:

OSHA; Permissible Exposure Limit (PEL): 200 ppm (TWA).  
ACGIH; Threshold Limit Value (TLV): 200 ppm (TWA); 250 ppm (STEL) skin.

### VENTILATION SYSTEM:

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

### PERSONAL RESPIRATORS (NIOSH) APPROVED:

If the exposure limit is exceeded and engineering controls are not feasible, wear an appropriate respirator with cartridge for the hazardous material being handled. All respirators should be approved and certified. For emergencies or instances where the exposure levels are not known, use a full face piece positive pressure, air supplied respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen deficient atmospheres. 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/goggles and/or a full face shield where splashing is possible. Maintain approved eye wash station in work area.

## 9. PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE:	Fixative, #1:	Clear green liquid
	Eosin, #2:	Dark red liquid
	Thiazine, #3:	Dark blue liquid
ODOR:	Fixative, #1:	Characteristic Odor
	Eosin, #2 & Thiazine, #3:	Odorless
SOLUBILITY:	Miscible with water. (All)	
SPECIFIC GRAVITY:	No information found.	
pH:	No information found.	
% VOLATILES by VOLUME:	No information found.	
BOILING POINT:	No information found.	
MELTING POINT:	No information found.	
VAPOR DENSITY (Air =1):	No information found.	
VAPOR PRESSURE (mm Hg):	No information found.	
EVAPORATION RATE (BuAc=1):	No information found.	

## 10. STABILITY and REACTIVITY

Fixative, #1 (J-322-1):

### STABILITY:

Stable under ordinary conditions of use and storage.

### HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon dioxide, carbon monoxide and formaldehyde may form when heated to decomposition.

### HAZARDOUS POLYMERIZATION:

Will not occur.

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### **INCOMPATIBILITIES:**

Strong oxidizing agents such as nitrates, perchlorates or sulfuric acid. Will attack some forms of plastics, rubber, and coatings. May react with metallic aluminum and generate hydrogen gas.

### **CONDITIONS to AVOID:**

Heat, flames, ignition sources and incompatibles.

### **Eosin, #2 (J-322-2) & Thiazine, #3 (J-322-3):**

#### **STABILITY:**

Stable under ordinary conditions of use and storage.

#### **HAZARDOUS DECOMPOSITION PRODUCTS:**

No information found.

#### **HAZARDOUS POLYMERIZATION:**

Will not occur.

#### **INCOMPATIBILITIES:**

No information found.

#### **CONDITIONS to AVOID:**

Heat, flames, ignition sources and incompatibles.

## **11. TOXICOLOGICAL INFORMATION**

### **Fixative, #1 (J-322-1):**

#### **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: Skin rabbit, 20mg/24hr (moderate); Eye rabbit, 100 mg/24hr (moderate). Investigated as a tumorigen, mutagen and reproductive effector.

#### **Cancer Lists**

-----NTP Carcinogen-----

<u>Ingredient</u>	<u>Known</u>	<u>Anticipated</u>	<u>IARC Category</u>
Methanol (67-56-1)	No	No	None

## **12. ECOLOGICAL INFORMATION**

### **For Methanol (Fixative, J-322-1):**

#### **ENVIRONMENTAL FATE:**

When released into the soil, this material may leach into ground water; it is expected to readily biodegrade and quickly evaporates. When released into water, this material is expected to have a half-life between 1 - 10 days. When released into the air, this material is expected to be readily degraded by reaction with photo chemically produced hydroxyl radicals; it is expected to have a half-life between 10 and 30 days. This material is expected to be readily removed from the atmosphere by wet deposition.

#### **ENVIRONMENTAL TOXICITY:**

This material is expected to be slightly toxic to aquatic life.

## **13. DISPOSAL INFORMATION**

Whatever cannot be saved for recovery or recycling should be handled as potentially hazardous waste and disposed of or incinerated at an approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## **14. TRANSPORT INFORMATION**

### **Fixative, #1 (J-322-1):**

#### **TRANSPORT (Land, DOT):**

UN1230, Methanol, 3, II

### **Eosin, #2 (J-322-2) & Thiazine, #3 (J-322-3):**

#### **TRANSPORT (Land, DOT):**

Not regulated.

**15. REGULATORY INFORMATION**

Chemical Inventory Status – Part 1

Ingredient	TSCA	EC	Japan	Australia
Methyl Alcohol (67-56-1)	Yes	Yes	Yes	Yes
Sodium Azide (26628-22-8)	Yes	Yes	Yes	Yes

Chemical Inventory Status – Part 2

Ingredient	Korea	DSL	NDSL	Phil
Methyl Alcohol (67-56-1)	Yes	Yes	No	Yes
Sodium Azide (26628-22-8)	Yes	Yes	No	Yes

Federal, State & International Regulations – Part 1

Ingredient	--SARA 302--		-----SARA 313-----	
	RQ	TPQ	List	Chemical Catg
Methyl Alcohol (67-56-1)	No	No	Yes	No
Sodium Azide (26628-22-8)	1000	500	Yes	No

Federal, State & International Regulations – Part 2

Ingredient	CERCLA	RCRA	TSCA
		261.33	8 (d)
Methyl Alcohol (67-56-1)	5000	U154	No
Sodium Azide (26628-22-8)	1000	P105	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No SARA 311/312: Acute: Yes Chronic: Yes  
 Fire: Yes Pressure: No Reactivity: Yes Physical State: Mixture/Liquid

**16. OTHER INFORMATION**

**PRODUCT USE:**

For manufacturing, industrial and laboratory use only; not for household use.

**DISCLAIMER:**

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