

MATERIAL SAFETY DATA SHEET

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Section I: IDENTIFICATION

Product Name: Acid Fast, ZN Carbol Fuchsin

Date Prepared: 07/16/03

Item Number: 6509, 6510

Emergency Phone: 800-424-9300

Section II: HAZARDOUS INGREDIENTS

<i>Hazardous Component(s):</i>	<i>CAS#</i>	<i>OHSA PEL, ACGIH TLV/STEL</i>	NFPA
Phenol < 9%	108-95-2	5 5/250 ppm	Health 1
Methanol < 1%	67-56-1	200 200/250 ppm	Flammability 1
Ethanol <17%	64-17-5 1000	1000/NR ppm	Reactivity 0
Basic Fuchsin < 1%	632-99-5	NR	

Section III: PHYSICAL DATA

<i>Boiling Point:</i>	~210°F	<i>Specific Gravity (H₂O = 1):</i>	~1
<i>Vapor Pressure mm Hg/20°C:</i>	79	<i>Percent Volatile by Vol:</i>	10%
<i>Vapor Density (Air 1:1):</i>	>1	<i>Evaporation Rate (ether = 1):</i>	>1
<i>Solubility in H₂O:</i>	Complete	<i>Appearance & Odor:</i>	Reddish liquid, phenolic odor

Section IV: FIRE/EXPLOSION HAZARD

Flash Point: 62°F *Flammable Limits:* LEL, NA UEL, NA
Extinguishing Media: Water spray, dry chemical, CO₂ and foam for alcohol
Special Fire Fighting Procedures: Wear protective clothing with NIOSH approved breathing apparatus. Products of combustion may be harmful in a fire situation. Do not use direct water stream.
Unusual Fire & Explosion Hazards: Toxic fumes may be emitted upon combustion.

Section V: REACTIVITY

Stability: Stable *Material to Avoid:* Strong oxidizers, chromic anhydride, perchloric acids etc.
Hazardous Decomposition or Byproducts: Oxides of carbon
Hazardous Polymerization: Does not occur *Conditions to Avoid:* Excessive heat

Section VI: HEALTH HAZARDS

Routes of Entry: Inhalation, Skin and Ingestion, Poison
Acute: Vapors may cause eyes, skin and respiratory irritation, drowsiness, nausea, headache and vomiting.
Chronic: May cause liver, heart and kidney damage. May cause gastrointestinal disturbances and convulsions.
Carcinogenicity: Not classified as a human carcinogen.
Signs/Symptoms of Exposure: Vision blurring, drowsiness and headache.

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Section VI: HEALTH HAZARDS

Emergency First Aid:

Skin: Remove contaminated clothing. Wash affected area with soap and water.

Eyes: Thoroughly flush eyes with water. Contact a physician if irritation persists.

Ingestion: Rinse mouth thoroughly with water, provided person is conscious and contact a physician.

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration and contact physician.

Section VII: SAFE HANDLING

Chemical Release or Spill: Eliminate source of ignition in the vicinity of the spill or released vapor. Isolate the spill area with sand, or other absorbent material. Place all contaminated material in closed container for disposal.

Waste Disposal Method: All liquid and or contaminated material should be disposed of in DOT approved waste containers. Incineration for liquids is the suggested method of disposal. Comply with all Federal, State and Local regulations for disposal.

Precautions for Handling and Storing: Use precautions for combustible liquids. Avoid excessive heat and sources of ignition. Use in ventilated area.

Section VIII: CONTROL MEASURES

Respiratory Protection: Not normally required. If used in a poorly ventilated area use under an approved fume hood or NIOSH approved respirator.

Ventilation: Mechanical exhaust is sufficient.

Protective Gloves: Chemical resistant *Eye Protection:* Safety glasses

Other Protective Clothing or Equipment: Normal laboratory apparel suggested by Good Laboratory Practices

Work/Hygienic Practices: Wash thoroughly with soap and water after handling.

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Astraldiagnosics shall not be held liable for any damage resulting from handling or contact with this product.

MATERIAL SAFETY DATA SHEET

1 OF 2

Section I: IDENTIFICATION

Product Name: **Acid Fast, ZN Decolorizer**

Date Prepared: 07/16/03

Item Number(s): 6509, 6520

Emergency Phone: 800-424-9300

Section II: COMPOSITION

<i>Hazardous Component(s):</i>	<i>CAS Number</i>	<i>OHSA PEL, ACGIH TLV/STEL(PPM)</i>		<i>NFPA</i>	
Methanol ~ 92%	67-56-1	200	200/250	Health	1
Hydrochloric Acid ~ 3%	7647-01-0	1	3/NA	Flammability	3
				Reactivity	0

Section III: PHYSICAL DATA

<i>Boiling Point:</i>	83°F	<i>Specific Gravity (H₂O = 1):</i>	~0.9
<i>Vapor Pressure mm Hg/20°C:</i>	40	<i>Percent Volatile by Vol:</i>	91%
<i>Vapor Density (Air 1:1):</i>	1.6	<i>Evaporation Rate (ether = 1):</i>	>1
<i>Solubility in H₂O:</i>	Complete	<i>Appearance & Odor:</i>	Colorless liquid/alcohol odor

Section IV: FIRE/EXPLOSION HAZARD

Flash Point: 55°F TCC *Flammable Limits:* LEL 3.3 UEL 1.9

Extinguishing Media: Water spray, dry chemical, CO₂ and foam for alcohol

Special Fire Fighting Procedures: Wear protective clothing with NIOSH approved breathing apparatus. Products of combustion may be harmful in a fire situation. Do not use direct water stream.

Unusual Fire & Explosion Hazards: May emit toxic fumes under fire conditions. Burns with invisible flame.

Section V: REACTIVITY

Stability: Stable *Material to Avoid:* Strong oxidizers, chromic anhydride, perchloric acids etc.

Hazardous Decomposition or Byproducts: Oxides of carbon and chlorine gas

Hazardous Polymerization: Does not occur *Conditions to Avoid:* Excessive heat, sparks or flames

Section VI: HEALTH HAZARDS

Routes of Entry: Inhalation, Skin and Ingestion *Target Organs:* Kidneys, nervous system, liver and eyes

Acute: Vapors may cause eyes, skin and respiratory irritation, drowsiness, nausea, headache and vomiting.

Chronic: May cause liver, heart and kidney damage. May cause gastrointestinal disturbances and convulsions.

Carcinogenicity: Not classified as a human carcinogen.

Signs/Symptoms of Exposure: Slightly hazardous to skin in the concentration provided. Protect eyes and respiratory system from mist. Vision blurring, burning sensation, drowsiness and headache.

MATERIAL SAFETY DATA SHEET

ZN, Decolorizer 2 OF 2

Section VI: HEALTH HAZARDS

Emergency First Aid:

Skin: Remove contaminated clothing. Wash affected area with soap and water.

Eyes: Thoroughly flush eyes with water. Contact a physician if irritation persists.

Ingestion: Rinse mouth thoroughly with water, provided person is conscious and contact a physician.

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration and contact physician.

Section VII: SAFE HANDLING

Chemical Release or Spill: Eliminate source of ignition in the vicinity of the spill or released vapor. Isolate the spill area with sand, or other absorbent material. Place all contaminated material in closed container for disposal.

Waste Disposal Method: All liquid and or contaminated material should be disposed of in DOT approved waste containers. Incineration for liquids is the suggested method of disposal. Comply with all Federal, State and Local regulations for disposal.

Precautions for Handling and Storing: Use precautions for flammable liquids. Avoid excessive heat and sources of ignition. For large quantities, store in flammable safety cabinet. Use in well-ventilated area.

Section VIII: CONTROL MEASURES

Respiratory Protection: Not normally required. If used in a poorly ventilated area use under an approved fume hood or NIOSH approved respirator.

Ventilation: Special flammable exhaust hood if vapor concentration is high. In well-ventilated areas, mechanical exhaust is sufficient.

Protective Gloves: Chemical resistant *Eye Protection:* Safety glasses

Other Protective Clothing or Equipment: Normal laboratory apparel suggested by Good Laboratory Practices

Work/Hygienic Practices: Wash thoroughly with soap and water after handling.

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MATERIAL SAFETY DATA SHEET

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Section I: IDENTIFICATION

Product Name: Acid Fast, ZN Methylene Blue

Date Prepared: 07/16/03

Item Number: 6509, 6530

Emergency Phone: 800-424-9300

Section II: HAZARDOUS INGREDIENTS

<i>Hazardous Component(s):</i>	<i>CAS#</i>	<i>OHSA PEL, ACGIH TLV/STEL(PPM)</i>	NFPA	
Methylene Blue <1%	7220-79-3	NE	Health	1
			Flammability	0
			Reactivity	0

*Product is not expected to present a health concern in the concentration offered.

Section III: PHYSICAL DATA

<i>Boiling Point:</i>	~212°F	<i>Specific Gravity (H₂O = 1):</i>	~1
<i>Vapor Pressure mm Hg/20°C:</i>	79	<i>Percent Volatile by Vol:</i>	10%
<i>Vapor Density (Air 1:1):</i>	>1	<i>Evaporation Rate (ether = 1):</i>	>1
<i>Solubility in H₂O:</i>	Complete	<i>Appearance & Odor:</i>	Blue liquid, odorless

Section IV: FIRE/EXPLOSION HAZARD

Flash Point: NA *Flammable Limits:* NA UEL, NA
Extinguishing Media: Water spray, dry chemical, CO₂ and foam
Special Fire Fighting Procedures: Wear protective clothing with NIOSH approved breathing apparatus.
Products of combustion may be harmful in a fire situation. Do not use direct water stream.
Unusual Fire & Explosion Hazards: May emit toxic fumes under fire conditions.

Section V: REACTIVITY

Stability: Stable *Material to Avoid:* Strong oxidizers, chromic anhydride, perchloric acids etc.
Hazardous Decomposition or Byproducts: Oxides of carbon and nitrogen and chlorine fumes
Hazardous Polymerization: Does not occur *Conditions to Avoid:* Excessive heat

Section VI: HEALTH HAZARDS

Routes of Entry: Inhalation, Skin and Ingestion. Very hazardous in case of ingestion.
Acute: Vapors may cause eyes, skin and respiratory irritation.
Chronic: May cause gastrointestinal disturbances.
Carcinogenicity: Not classified as a human carcinogen.
Signs/Symptoms of Exposure: Eye irritation.

MATERIAL SAFETY DATA SHEET

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Section VI: HEALTH HAZARDS

Emergency First Aid:

Skin: Remove contaminated clothing. Wash affected area with soap and water.

Eyes: Thoroughly flush eyes with water. Contact a physician if irritation persists.

Ingestion: Rinse mouth with water, provided person is conscious and contact a physician.

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration and contact physician.

Section VII: SAFE HANDLING

Chemical Release or Spill: Isolate the spill area with sand, or other absorbent material. Place all contaminated material in a closed container for disposal.

Waste Disposal Method: All liquid and or contaminated material should be disposed of in DOT approved waste containers. Incineration for liquids is the suggested method of disposal. Comply with all Federal, State and Local regulations for disposal.

Precautions for Handling and Storing: Normal laboratory precautions. Avoid excessive heat.

Section VIII: CONTROL MEASURES

Respiratory Protection: Not normally required.

Ventilation: Mechanical exhaust is sufficient.

Protective Gloves: Chemical resistant *Eye Protection:* Safety glasses

Other Protective Clothing or Equipment: Normal laboratory apparel as suggested by Good Laboratory Practices

Work/Hygienic Practices: Wash thoroughly with soap and water after handling.

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Astral Diagnostics shall not be held liable for any damage resulting from handling or contact with this product.