


# Horizons Incorporated

## Safety Data Sheet

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

<b>1. Product and Company Identification</b>	
Product Name	Dye-N-Seal Liquid Concentrate – Plaque Gold
Manufacturer's name	Horizons Incorporated
Address	18531 South Miles Road Cleveland, Ohio 44128
Emergency Telephone Number	(216) 475-0555
Information Telephone Number	(216) 475-0555
<b>2. Hazards Identification</b>	
<b>GHS Classification</b>	
H302 H332 H312 H316 H320 H317 H350 H335	Acute toxicity, Oral – Category 4 Acute toxicity, Inhalation – Category 4 Acute toxicity, Dermal – Category 4 Skin corrosion/irritation – Category 3 Serious eye damage/eye irritation – Category 2B Skin sensitization – Category 1B Carcinogenicity – Category 1A Specific target organ toxicity – Single exposure – Category 3
<b>GHS Label Elements</b>	
Hazard Pictogram	
Signal Word	Danger
<b>Hazard Statements</b>	
H350 H302+H332 H312 H316 H320 H317 H335	May cause cancer Harmful if swallowed or inhaled Harmful in contact with skin Causes mild skin irritation Causes eye irritation May cause an allergic skin reaction May cause respiratory irritation
<b>Precautionary Statements</b>	
P201 P202 P261 P264 P270 P271 P272 P280 P361+P364 P301+P330 P312 P302+P352 P305+P351+P338  P333+P337+P313 P308+P313 P404 P403+P233	Obtain special instructions before use Do not handle until all safety precautions have been read and understood Avoid breathing mists, vapors, & spray Wash thoroughly after handling Do not eat, drink, or smoke when using this product Use only in a well-ventilated area Contaminated work clothing should not be allowed out of the workplace Wear protective gloves & clothing, and eye & face protection Take off immediately all contaminated clothing and wash before reuse IF SWALLOWED: Rinse mouth. Call a poison center/doctor if you feel unwell IF ON SKIN, wash with plenty of water IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing If skin rash or eye irritation occurs or persists, get medical advice/attention If exposed or concerned: Get medical advice/attention Store locked up Store in a well-ventilated place. Keep container tightly closed

### 3. Composition/Information on Ingredients

Components/ Materials	CAS Number	%
Nickel Acetate	373-02-4	1.9 – 2.0
Nickel (as an integral part of the compound)	7440-02-0	0.61-0.66
Aluminum Fast Gold L	Not available	0.4
Aluminum Fast Bronze L	Not available	0.2
Copper (as integral part of dye molecule)	7440-50-8	0.02
Hexylene glycol	107-41-5	0.02

Nickel Acetate is subject to the reporting requirements of section 313 of SARA 313 Title III (40CFR part 372)

### 4. First Aid Measures

Inhalation	Promptly remove to fresh air. Give artificial respiration or oxygen if breathing has stopped. Get prompt medical attention. Never give anything by mouth to an unconscious person.
Skin Contact	Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention. Wash contaminated clothing before reuse.
Eye Contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If redness or irritation occurs, seek medical attention.
Ingestion	If ingested, do not induce vomiting. Do not give anything to drink. Contact physician immediately.

### 5. Fire Fighting Measures

<b>Flammable Properties</b>	Flash point – non-flammable
<b>Flammable Limits</b>	
Lower Flammable Limit	Not applicable
Upper Flammable Limit	Not applicable
<b>Hazardous Combustion Products</b>	Thermal decomposition may produce acrid smoke, oxides of carbon, nitrogen, nickel, copper, & sulfur.
<b>Unusual Fire/Explosion Hazards</b>	None
<b>Extinguishing Media</b>	Use that of surrounding fire
<b>Special Firefighting Procedures</b>	Wear self-contained breathing apparatus & protective clothing to prevent contact with skin and eyes. Prevent run off to sewers and bodies of water from fire fighting involving this product as product contains Clean Water Act priority pollutants.

### 6. Accidental Release Measures

<b>Small Spill</b>	Absorb spill with an inert material and place in a chemical waste container
<b>Large Spill</b>	Contain spilled liquid with sand or earth. Absorb spill with an inert material and shovel into a chemical waste container. Prevent runoff from entering into sewers and ditches which lead into natural waterways.

### 7. Handling and Storage

<b>Handling</b>	Avoid contact with eyes. Keep container closed. Use only in a well ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated breathing of mists and vapors. Avoid prolonged or repeated contact with skin.
<b>Storage</b>	Store between 65-85°F. Keep containers sealed when not in use.

### 8. Exposure Control/Personal Protection

Exposure Limits				
Chemical Name	CAS No.	OSHA	ACGIH	NIOSH
Nickel Acetate Tetrahydrate	6018-89-9	0.1mg/m <sup>3</sup> TWA	0.1 mg/m <sup>3</sup> TWA	0.015mg/m <sup>3</sup> TWA
Nickel, elemental	7440-02-0	ND	1.5 mg/m <sup>3</sup> TWA	ND
Hexylene glycol	107-41-5	125 mg/m <sup>3</sup> TWA	121mg/m <sup>3</sup> TLV	ND
Copper compounds	7440-50-8	0.1 mg/m <sup>3</sup> TWA	1mg/m <sup>3</sup> TLV	ND

ND – Not Determined

<b>Engineering Controls</b>	Control airborne concentrations below the exposure limits. Use only with adequate ventilation. Local exhaust ventilation may be necessary. Keep sealing baths covered whenever possible.
<b>Respiratory Protection</b>	When respiratory protection is required, use a NIOSH approved air-purifying respirator equipped with a combination high efficiency filter and acid gas canister. For emergency and other conditions where exposure limits may be greatly exceeded, use an approved positive-pressure, self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply.
<b>Skin Protection</b>	For brief contact, no precautions other than clean body-covering clothing should be needed. Use chemical resistant gloves, such as nitrile or polychloroprene, when handling chemical products.
<b>Eye Protection</b>	Use safety glasses with side shields or, preferably, chemical goggles.

## 9. Physical and Chemical Properties

Boiling Point	approx. 100°C
Specific Gravity	1.01 – 1.02
% Volatiles	96% (water)
Solubility in Water	Soluble in all proportions
pH	5.3-5.6
Odor	Vinegar odor
Form	Liquid
Color	Gold
VOC	None

## 10. Stability and Reactivity

<b>Chemical Stability</b>	Stable under normal storage conditions
<b>Conditions to Avoid</b>	None
<b>Incompatibility</b>	Strong oxidizing agents, strong caustic agents
<b>Hazardous Decomposition Products</b>	Oxides of carbon, nitrogen, nickel, copper, & sulfur.
<b>Hazardous Polymerization</b>	Will not occur

## 11. Toxicological Information

Results of component toxicity test performed:	
Data for Nickel Acetate Tetrahydrate (CAS 6018-89-9)	Acute Toxicity Data: Oral LD50: 350 mg/kg (rat). Oral LD50: 410 mg/kg (mouse). Chronic effects on humans: Causes damage to the following organ: lungs, skin, nose/sinuses. Carcinogenic effects: Classified 1 (proven for humans) by IARC, 1 (known to be human carcinogen) by NTP, + (proven) by NIOSH, classified A4 (not classifiable for humans or animals) by ACGIH. Other toxic effects on humans: Very hazardous in case of skin contact (sensitizer), of inhalation (lung irritant, lung sensitizer). Inhalation of this material may cause sensitive individuals to develop eczema and/or asthma.
Data for Aluminum Fast Gold L	Acute Toxicity Data: Oral LD50: >5000 mg/kg (rat). Skin Irritation: non-irritant (rabbit) Method: 16CFR1500.41 Eye irritation: non-irritant (rabbit) Method: 16CFR1500.42
Data for Aluminum Fast Bronze L	Acute Toxicity Data: Oral LD50: 5000 mg/kg (rat). Skin Irritation: non-irritant (rabbit) Method: 16CFR1500.41 Eye irritation: non-irritant (rabbit) Method: 16CFR1500.42
Data for Hexylene glycol (CAS 107-41-5)	Acute Toxicity Data: Oral LD50: 3700 mg/kg (rat). Skin Irritation: irritant (rabbit) Eye irritation: severe irritant (rabbit)

## 12. Ecological Information

The following properties are ESTIMATED from the components of the preparations.	
Potential Toxicity:	
Toxicity to <i>scenedesmus subspicatus</i> (EC50)	0.8 mg/l/48H
Persistence and degradability	ND
Chemical Oxygen Demand (COD)	ND
Biochemical Oxygen Demand (BOD)	ND
Chemical Fate Information	ND
Note: Inhibition of bacterial flora > 0,0025 mg/l	

**13. Disposal Considerations**

Small quantities may be treated in aerobic wastewater treatment systems.  
Soluble nickel salts may be precipitated with caustic for reclamation or disposal. Note that Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.  
Contact a licensed professional waste disposal service to dispose of large quantities of this material

**14. Transport Information**

<b>Proper Shipping Name</b>	Chemicals, N.O.S., Not D.O.T. Regulated
<b>UN No.</b>	None
<b>IATA Class</b>	Not Regulated
<b>Packing Group</b>	Not applicable

**15. Regulatory Information**

<b>U.S. Federal Regulations</b>	
<b>TSCA Section 8 (b) Inventory</b>	All components are listed on the TSCA Chemical Inventory
<b>OSHA</b>	Hazardous by definition of Hazard Communications Standard (29CFR1910.1200)
<b>SARA Hazard Category</b>	
<b>SARA 302 Components</b>	Nickel acetate
<b>SARA 313 Components</b>	Nickel acetate
<b>SARA 311/312 Hazards</b>	Acute health Hazard, Chronic Health Hazard
<b>CERCLA</b>	Nickel (RQ 100 lbs)
<b>Clean Water Act (CWA) 307</b>	Contains priority pollutant nickel at concentrations greater than 0.1%
<b>State Regulations</b>	
<b>Massachusetts Right To Know Components</b>	Nickel acetate
<b>Pennsylvania Right To Know Components</b>	Nickel acetate
<b>New Jersey Right To Know Components</b>	Nickel acetate
<b>California Proposition 65 Components</b>	This product contains a chemical known to the State of California to cause cancer.
<b>NESHAP</b>	Nickel acetate sealing baths are subject to the compliance requirements of NESHAP (National Emission Standard for Hazardous Air Pollutants). Sealing baths that contain nickels at concentrations greater than 0.1% are subject to the reporting requirements of NESHAP 6W.

**16. Other Information**

<b>HMIS</b>
H – 2*
F – 0
R – 0
PPE – H
The information in this material safety data sheet should be provided to all who will use, handle, store, transport, or otherwise be exposed to this product. This information has been prepared for the guidance of plant engineering, operations & management, and for persons working with or handling this product. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions but does not purport to be all inclusive. Horizons Incorporated shall not be held liable for any damage resulting from handling or from contact with the above product.