Date revised: 6/7/2012

MATERIAL SAFETY DATA SHEET

Conforms to 93/112/EC and ISO 11014-1

1. Chemical Product and Company Identification

Product Name: Histo-Clear II **Product Number:** HS-202

Chemical Names/ Description: Mixture of alkyl hydrocarbons and essential oils

Manufacturer
National Diagnostics
305 Patton Drive
Atlanta, GA 30336

Telephone Numbers

(800) 526-3867
(404) 699-2121

Emergency Numbers
Chemtrec
(800) 424-9300 (U.S. & Canada)
01-703-527-3887 (outside U.S. & Canada)

2. Composition/Information on Ingredients

Component	% Comp.	CAS #	EINECS #	TLV (Units)
Aliphatic Hydrocarbons	70 - 90			300 ppm
d-limonene	10 - 30	5989-27-5	227-813-5	

EEC LABEL SYMBOL AND CLASSIFICATION

R: 10-38-43-50/53
Flammable. Irritating to skin. May cause sensitization by skin contact. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S: 2-24-37-60-61
Keep out of the reach of children. Avoid contact with skin. Wear suitable non-latex gloves. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/Safety data sheets.

3. Hazards Identification

Appearance and Odor

Clear and colorless liquid

EMERGENCY OVERVIEW - IMMEDIATE HAZARD

PRODUCT IS SLIGHTLY IRRITATING TO EYES (NO INJURY). HIGH VAPOR MAY CAUSE RESPIRATORY TRACT IRRITATION, HEADACHE, DIZZINESS, ANESTHESIA, DROWSINESS, UNCONSCIOUSNESS, OR DEATH. INGESTION: MINIMAL TOXICITY. ASPIRATION MAY LEAD TO PULMONARY INJURY AND DEATH.

EMERGENCY OVERVIEW - CHRONIC HAZARD WARNING

NO CHRONIC HAZARDS SUSPECTED.

Potential Health Effects

Inhalation

High vapor/aerosol concentrations (greater than approximately 1000 ppm) are irritating to the eyes and the respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.

Ingestion

Minimal toxicity by ingestion, though small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly progressing to death.

Skin

Low order or toxicity. Frequent or prolonged contact may irritate and cause dermatitis. Skin contact may aggravate an existing dermatitis condition.

Eyes

Slightly irritating but does not injure eye tissue.

Signs and Symptoms of Overexposure

Inhalation

Headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.

Ingestion

Minimal toxicity by ingestion.

Skin

Dermatitis may occur with frequent or prolonged contact.

Eyes

Product is only slightly irritating to eye tissue, non injurious.

Carcinogenicity

Not listed by NTP, IARC, or OSHA.

Mutagenicity

No information available.

Reproductive Toxicitiy

No information available.

Teratogenic Effects

No information available.

Routes of Entry

Inhalation or by skin contact.

Target Organ Statement

No information available.

4. First Aid Measures

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion

Do not induce vomiting. If swallowed and the person is conscious, immediately give large amounts of water. Get medical attention.

Skin

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes

Immediately flush eyes with plenty of water for at least fifteen minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire Fighting Measures

Flash Point	104 F	Flammable Limits	LEL 1.2%; UEL 9.6%
Flash Point Method	TCC	Autoignition temperature	559 F (app

Extinguishing media

Dry powder, foam, carbon dioxide. (Water may be ineffective.)

Protective Equipment

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

Hazardous Combustion Products

Thermal decomposition products may include carbon monoxide, carbon dioxide, and hydrocarbons.

Unusual Fire and Explosion Hazards

Flammable liquid. Vapor forms explosive mixtures with air. Vapor may travel considerable distances to ignition source and flash back.

NFPA Codes: Health 1 Flammability 2 Reactivity 0

6. Accidental Release Measures

Steps to be taken in case material is released or spilled

Eliminate source of ignition. Ventilate area. Cover with absorbent material (soda ash) to confine spill and sweep or shovel into container. Close container tightly. Avoid breathing vapors.

Waste Disposal Method

Disposal must be made in accordance with applicable federal, state, and local regulations.

Personal Precautions

Wear appropriate protective equipment as specified in section 8.

7. Handling and Storage

Handling

Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Transfer methods should avoid static sparks. Use explosion proof ventilation.

Storage

Keep in a tightly closed container, stored in a cooled, dry, ventilated area away from sources of heat or ignition. Protect from physical damage. Isolate from incompatible materials.

Storage Temperature

Room Temperature

Disposal

Observe all national, state, and local regulations regarding product disposal. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquids).

8. Exposure Controls/Personal Protection

Airborne Exposure Limits

Component: Aliphatic Hydrocarbons

ACGIH Threshold Limit Value (TLV): 300 ppm

OSHA Permissable Exposure Limit (PEL):

Engineering Controls

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

Respiratory Protection

If the exposure limit is exceeded, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus.

Eye Protection

Safety glasses.

Skin Protection

Wear protective gloves and clean body covering clothing.

Other Control Measures

N.A.

9. Physical Properties

Boiling point	325 - 360 F	**Evaporation rate**	0.3 (n-Bu Acetate=1)
Melting point	Less than -68 F	**Solubity in water**	Less than 0.01% @77F
Vapor pressure (mmHg)	2 mmHg @ 68 F	**pH**	N.A.
Vapor density (Air = 1)	4.94	**Specific gravity (H2O = 1)**	0.75 @ 60 F
% volatile by volume	100		

10. Stability and Reactivity

Stability

Stable under normal conditions of use.

Conditions to Avoid

Heat, sources of ignition.

Hazardous Decomposition Products

None

Hazardous Polymerization

Will not occur

Incompatibles

Aliphatic Hydrocarbons:

Strong oxidizing agents.

d-limonene:

Avoid contact with strong acids, alkalis, or oxidizing agents.

11. Toxicological Information

Product LD50 Values

Histo-Clear II	Oral Rat LD50 (mg/kg):	Minimal toxicity by ingestion.
Histo-Clear II	Dermal Rabbit LD50 (mg/kg):	Minimal toxicity by skin contact.

Component Cancer List Status

	NTP Carcinogen		
	Known	Anticipated	IARC Category
Aliphatic Hydrocarbons	No	No	None
d-limonene	No	No	None

12. Ecological Information

Aliphatic Hydrocarbons

No specific ecological data is available for this material. Please refer to Section 6 for information regarding accidental releases.

d-limonene

No information available on the ecological fate of this material.

13. Disposal Considerations

Observe all national, state, and local regulations regarding product disposal. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquids).

14. Transport Information

D.O.T.

Proper Shipping Name: Petroleum Products N.O.S. (aliphatic and terpene hydrocarbons)
Hazard Class: 3
UN Number: 1268
Packing Group: III

I.A.T.A.

Proper Shipping Name: Petroleum Products N.O.S. (aliphatic and terpene hydrocarbons)
Hazard Class: 3
UN Number: 1268
Packing Group: III

I.M.O.

Proper Shipping Name: Petroleum Products N.O.S. (aliphatic and terpene hydrocarbons)
Hazard Class: 3
UN Number: 1268
Packing Group: III

15. Regulatory Information

United States

TSCA Regulatory Statement

All intentional ingredients are listed on the TSCA Inventory.

SARA 311/312 Hazard Categories

Component	Fire	Pressure	Reactivity	Acute	Chronic
Aliphatic Hydrocarbons	Yes	No	No	No	No
d-limonene	Yes	No	No	Yes	No

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

EEC LABEL SYMBOL AND CLASSIFICATION

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16. Other Information

NFPA Codes: Health 1 Flammability 2 Reactivity 0

MANUFACTURER DISCLAIMER: The information given herein is offered in good faith as accurate, but without guarantee. Conditions of the use and suitability of the product for particular uses are beyond our control. All risks of use of the product are therefore assumed by the user. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.