

MATERIAL SAFETY DATA SHEET



Conforms to regulation (EC) no. 1272/2008

1. Chemical Product and Company Identification

Product Name: Histo-Clear**Product Number:** HS-200**Chemical Names/****Description:**

Distilled essential oils - food grade

Manufacturer National Diagnostics

305 Patton Drive

Atlanta, GA 30336

Agent AGTC Bioproducts

Unit 4 Fleet Business Park

Itlings Lane, Hessele

East Riding of Yorkshire HU139LX

Telephone Numbers(800) 526-3867

(404) 699-2121

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

2. Hazards Identification

EEC LABEL SYMBOL AND CLASSIFICATION

IRRITANT

**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.****GHS LABEL ELEMENTS AND CLASSIFICATION****GHS Hazard Categories**

Not applicable

GHS Label Elements

DANGERH226 - Flammable liquid and vapor.

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H410 - Very toxic to aquatic life with long lasting effects.

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician .

P331 - Do NOT induce vomiting.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

P333+P313 - IF SKIN irritation or rash occurs: Get medical advice/attention.

P501 - Dispose of contents/containers to an approved waste disposal plant.

3. Composition/Information on Ingredients

Chemical Names/Description

Distilled essential oils - food grade

Appearance and Odor

Colorless, mobile liquid with citrus odor

Chemical Formula

C₁H₁₆

Component	% Comp.	CAS #	EINECS #	TLV (Units)
d-limonene	95-100%	5989-27-5	227-813-5	

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

Remove contact lenses at once. 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	49 C	Flammable Limits	L.E.L 0.7%; U.E.L. 6.1%
Flash Point Method	TCC	Autoignition temperature	not available

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

None known to National Diagnostics.

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.

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.

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

20 - 30 C

Disposal

Observe all national, state, and local regulations regarding disposal.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits

Component: d-limonene

ACGIH Threshold Limit Value (TLV):

OSHA Permissible Exposure Limit

(PEL):

Engineering Controls

Local exhaust should be adequate.

Respiratory Protection

Not expected to require personal respirator usage, but if vapor concentration becomes high, use approved self-contained air mask.

Eye Protection

Safety glasses.

Skin Protection

Wear protective gloves and clean body covering clothing.

Other Control Measures

N.A.

9. Physical Properties

Boiling point	355 F (179 C)	Evaporation Rate	N.A.
Melting point	N.A.	Solubility in water	Insoluble
Vapor pressure (mmHg)	6.0 mm HG @ 25 C	pH	N.A.
Vapor density (Air = 1)	4.94 (air = 1)	Specific gravity (H2O = 1)	0.85 @ 25 C
% Volatile by volume	100		

10. Stability and Reactivity

Stability

Stable under normal conditions of use. Incompatible with strong oxidizing agents.

Conditions to Avoid

Heat, sources of ignition.

Hazardous Decomposition Products

Carbon monoxide and unidentified organic compounds may be formed during combustion.

Hazardous Polymerization

Will not occur

Incompatibles

d-limonene:

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

11. Toxicological Information

Product LD50 Values

Histo-Clear	Oral Rat LD50 (mg/kg):	GRAS (Generally Regarded As Safe)
Histo-Clear	Dermal Rabbit LD50 (mg/kg):	GRAS (Generally Regarded As Safe)

Component Cancer List Status

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

12. Ecological Information

d-limonene

No information available on the ecological fate of this material.

13. Disposal Considerations

Observe all national, state, and local regulations regarding disposal.

14. Transport Information

A.D.R./R.I.D.

Proper Shipping Name: Terpene Hydrocarbons, N.O.S. (d-limonene)

Hazard Class: 3

UN Number: 2319

Packing Group: III

I.A.T.A.

Proper Shipping Name: Terpene Hydrocarbons, N.O.S. (d-limonene)

Hazard Class: 3

UN Number: 2319

Packing Group: III

I.M.O.

Proper Shipping Name: Terpene Hydrocarbons, N.O.S. (d-limonene)

Hazard Class: 3

UN Number: 2319

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
d-limonene	Yes	No	No	Yes	No

Europe

EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

16. Other Information

NFPA Codes: Health 1 Flammability 2 Reactivity 0

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