

# SAFETY DATA SHEET



Conforms to regulation (EC) no. EU 453/2010

## SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product Identifier

Product Name: OptiClear R

Product Number: OE-102

### 1.2 Relevant Identified Uses of the Substance/Mixture and Uses Advised Against

Investigational research by professional users

### 1.3 Details of the Supplier of the Safety Data Sheet

#### Manufacturer

National Diagnostics  
305 Patton Drive  
Atlanta, GA 30036  
(404) 699-2121  
(800) 526-3867  
info@nationaldiagnostics.com

### 1.4 Emergency Telephone Number

#### ChemTel Inc.

Contract number MIS8894340  
1-800 255-3924 (United States, Canada, Puerto Rico & US Virgin Islands)  
01-800-099-0731 (Mexico)  
400-120-0751 (China)  
000-800-100-4086 (India)  
1-300-954-583 (Australia)  
0-800-591-6042 (Brazil)  
+1-813-255-3924 (All other regions)

## SECTION 2 - HAZARDS IDENTIFICATION

### 2.1 Classification of the Substance or Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP]

H227 - Flammable Liquids (Category 4)  
H319 - Serious Eye Damage/Eye Irritation (Category 2A)

### 2.2 Label Elements

#### GHS LABEL ELEMENTS AND CLASSIFICATION

##### GHS Label Elements



#### WARNING

H227 - Combustible liquid.  
H319 - Causes serious eye irritation.  
P262 - Do not get into eyes, on skin or on clothing.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses if present and easy to do. Continue rinsing.

### 2.3 Other Hazards

None found.

## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixture

#### Chemical Names/Description

Mixture of d-limonene, ethanol, isopropanol and water.

#### Component List

Component	% Comp.	CAS #	EC #	1278/2008 Classification
Ethanol	15 - 20	64-17-5	200-578-6	H225, H319

## SECTION 4 - FIRST AID MEASURES

### 4.1 Description of First Aid Measures

#### Inhalation

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

#### **Ingestion**

Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Call a physician.

#### **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.

### **4.2 Most Important Symptoms and Effects, Both Acute and Delayed**

#### **Inhalation**

Cough, drowsiness, headache and fatigue.

#### **Ingestion**

Burning sensation, confusion, dizziness, headache and unconsciousness.

#### **Skin**

Dryness.

#### **Eyes**

Redness, pain and burning.

### **4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed**

Unknown/not applicable

## **SECTION 5 - FIRE FIGHTING MEASURES**

### **5.1 Extinguishing media**

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

### **5.2 Special Hazards Arising from the Substance/Mixture**

#### **Hazardous Combustion Products**

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

#### **Hazardous Decomposition Products**

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

#### **Hazardous Polymerization**

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

### **5.3 Advice for Firefighters**

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.

### **5.4 Further Information**

No data available.

## **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

### **6.1 Personal Precautions**

Wear appropriate protective equipment as specified in Section 8.

### **6.2 Environmental Precautions**

Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.

### **6.3 Methods and Materials for Containment and Cleaning Up**

Contain and clean up spill immediately, prevent from entering floor drains. Contain liquids using absorbents. Shovel all spill materials into disposal drum. Scrub spill area with detergent, flush with copious amounts of water.

### **6.4 References to Other Sections**

For disposal information, see Section 13. For protective clothing and equipment, see Section 8.

## **SECTION 7 - HANDLING AND STORAGE**

### **7.1 Precautions for Safe Handling**

Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

### **7.2 Conditions for Safe Storage (including any incompatibles)**

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 (section 10).

#### Incompatibles

Strong oxidants, silver salts, acid chlorides, alkali metals, hydrazine, and many other substances.

### 7.3 Specific End Uses

Investigational research by professional users

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PRECAUTIONS

### 8.1 Control Parameters

ACGIH Threshold Limit Value (TLV): 1000 ppm

OSHA Permissible Exposure Limit (PEL): None established

### 8.2 Exposure Controls

#### Engineering Controls

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

#### Respiratory Protection

If exposure limits are exceeded, wear a full-face respirator with organic vapor cartridge and high efficiency dust mist filter. Beyond fifty times exposure limits or when exposure levels are not known, wear a full-face piece positive pressure respirator.

#### Eye Protection

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

#### Skin Protection

Wear protective gloves and clean body covering clothing.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on Basic Physical & Chemical Properties

a. Appearance	Colorless, mobile liquid	b. Odor	Slight citrus odor
c. Odor Threshold	N.A.	d. pH	N.A.
e. Melting/Freezing Point (°C)	0	f. Boiling point (°C)	82.2
g. Flash Point (°C)	61.1	h. Evaporation Rate	2.0 (Bu Acetate = 1)
i. Flammability	N.A.	j. Upper/Lower Flammability or Explosive Limits	N.A.
k. Vapor Pressure	58 mm Hg @ 38C	l. Vapor Density (Air = 1)	1.5 (air = 1)
m. Relative Density	0.94	n. Water Solubility	Soluble
o. Partition Coefficient n-octanol/water	Mixture	p. Autoignition Temperature (°C)	N.A.
q. Decomposition Temperature (°C)	N.A.	r. Viscosity	No data available.
s. Explosive Properties	N.A.	t. Oxidizing Properties	Not an oxidizer

## SECTION 10 - STABILITY AND REACTIVITY

### 10.1 Reactivity

Reacts with strong oxidizers.

### 10.2 Chemical Stability

Stable under normal conditions of use and storage.

### 10.3 Possibility of Hazardous Reactions

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

### 10.4 Conditions to Avoid

Heat, flame, incompatibles.

### 10.5 Incompatible Materials

Strong oxidants, silver salts, acid chlorides, alkali metals, hydrazine, and many other substances.

### 10.6 Hazardous Decomposition Products

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

## SECTION 11 - TOXICOLOGICAL INFORMATION

### Product LD50 Values

Oral Rat LD50 (mg/kg)

**Dermal Rabbit LD50 (mg/kg)**

No Data

**Component Cancer List Status**

	NTP Carcinogen		IARC Category
	Known	Anticipated	
Ethanol	No	No	None

**Potential Health Effects****Inhalation**

Can cause irritation to the lungs and upper respiratory tract. May cause headache or fatigue.

**Ingestion**

May cause irritation or central nervous system effects if swallowed.

**Skin**

May cause drying or irritation to the skin.

**Eyes**

May cause irritation to the eyes.

**Carcinogenicity**

Not listed as a known or possible carcinogen by NTP or IARC.

**Mutagenicity**

No information available.

**Reproductive Toxicity**

Consumption during pregnancy may adversely affect the unborn child.

**Teratogenic Effects**

No information available.

**Routes of Entry**

Inhalation, ingestion, skin contact.

**Target Organ Statement**

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.

**SECTION 12 - ECOLOGICAL INFORMATION****12.1 Toxicity**

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxicity (ppm unless otherwise noted)	LC50 (96 hour, fathead minnow) 14g/L	EC50 (48hr, daphnia) 5g/L	EC50 (72hrs) 275mg/L	IC50 >1g/L
	Birds	Arthropods	Plants	Microorganisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	EC50 155ppm vapor	No data

**12.2 Persistence and Degradability**

Readily biodegradable (95% degradation in 15 days)

**12.3 Bioaccumulative Potential**

No data

**12.4 Mobility in Soil**

No data

**12.5 Results of PBT and vPvB Assessment**

Not PBT or vPvB

**12.6 Other Adverse Effects**

None

**SECTION 13 - DISPOSAL CONSIDERATIONS**

### 13.1 Waste Treatment Methods

Offer surplus or non-recyclable product to licensed disposal company. Disposal is subject to user compliance with applicable law and product characteristics at time of disposal. Dispose of packaging as product.

## SECTION 14 - TRANSPORT INFORMATION

	ADR/RID	IATA	IMO	DOT
14.1 UN Number	N.A.	N.A.	N.A.	N.A.
14.2 Shipping Name	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.3 Hazard Class	N.A.	N.A.	N.A.	N.A.
14.4 Packing Group	N.A.	N.A.	N.A.	N.A.
14.5 Environmental Hazards	N.A.	N.A.	N.A.	N.A.
14.6 Special Precautions	N.A.	N.A.	N.A.	N.A.

## SECTION 15 - REGULATORY INFORMATION

### 15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance/Mixture

#### 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
Ethanol	Yes	No	No	Yes	Yes

#### Europe

##### EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

## SECTION 16 - OTHER INFORMATION

### Revisional Updates

4/26/2019 - Updated Section 1.4

6/4/2015 - Released Version 1.0

### NFPA Codes

Health 1 Flammability 2 Reactivity 0

### Dangers

#### Ethanol

H225 - Highly flammable liquid and vapor.

H319 - Causes serious eye irritation.

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