

## SAFETY DATA SHEET

ISSUANCE DATE: January 19, 2017

SDS # 30-81-031-0

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

L'Oreal USA Products, Inc.  
133 Terminal Avenue  
Clark, NJ 07066

L'Oreal Canada  
4895 rue Hickmore  
Ville St-Laurent, H4T 1K5  
Canada

**Emergency Telephone Number:**

1-800-535-5053 (International: 352-323-3500)  
In Canada – 1-613-996-6666 (Canutec) (\*666 cellular)

**For further information:**

1-732-499-2741

**Poison Control Number:** 412-390-3326



**Product Name: Essie First Base – Base Coat**

**Recommendations on use:** Personal care product used on the nail for cosmetic effect.

**Restrictions on use:** Avoid fire, flame, heat and other sources of ignition. For external use only. Keep away from contact with eyes. Use only as directed. Liquid dispensed from the container is considered flammable until dry.

### SECTION 2: HAZARDS IDENTIFICATION

**Signal Word: DANGER**

Symbol	Classification	Hazard Statement	Prevention Statements
	Flammable Liquids Category 2	Highly flammable liquid and vapor	<ul style="list-style-type: none"> <li>Keep away from heat, sparks, open flames and hot surfaces. No smoking.</li> <li>Keep container tightly closed.</li> <li>Ground/bond container and receiving equipment.</li> <li>Use explosion-proof electrical, ventilating, lighting, manufacturing and packaging equipment.</li> <li>Use only non-sparking tools.</li> <li>Take precautionary measures against static discharge.</li> </ul>
	Eye Irritation Category 2A	Causes serious eye irritation	<ul style="list-style-type: none"> <li>Wash hands thoroughly after handling.</li> <li>Wear eye protection appropriate for the manufacturing operation being performed (goggles or face shield).</li> </ul>
See Symbol Above	Skin Irritation Category 2	Causes skin irritation	<ul style="list-style-type: none"> <li>Wear nitrile or vinyl protective gloves.</li> </ul>

Symbol	Classification	Hazard Statement	Prevention Statements
See Symbol Above	Specific Target Organ Toxicity (Single Exposure) Category 3	May cause drowsiness or dizziness	<ul style="list-style-type: none"> <li>Avoid breathing mist/vapors/spray.</li> <li>Use only outdoors or in a well-ventilated area.</li> </ul>

This material is considered hazardous by the US Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200)

General Precautionary Statements: Keep out of reach of children. Read label before use. Over-exposure may cause skin dryness or slight irritation.

Hazards Not Otherwise Classified: None

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## **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

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**Only hazardous constituents associated with the product are listed below**

<b><u>INGREDIENT:</u></b>	<b><u>CAS NO.</u></b>	<b><u>% WT</u></b>
Ethyl Acetate	141-78-6	≤ 25.2%
Ethyl Alcohol	64-17-5	≤ 25.0%
Butyl Acetate	123-86-4	≤ 21.5%
Heptane	64742-89-8	≤ 10.0%
Nitrocellulose	9004-70-0	≤ 5.5%
Isopropyl Alcohol	67-63-0	≤ 2.4%

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## **SECTION 4: FIRST AID MEASURES**

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**Response Statements:**

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing until material is sufficiently removed from the eye. **If eye irritation persists:** Get medical advice/attention.

**IF ON SKIN:** Take off immediately all contaminated clothing. Wash with plenty of water. **If skin irritation occurs:** Get medical attention. Wash contaminated clothing before reuse.

**IF INHALED:** Remove person to fresh air and keep in a position comfortable for breathing. Call a Poison Control Center if you feel unwell.

**IF SWALLOWED:** Do not induce vomiting. Never give anything by mouth to an unconscious individual. Consult a physician or Poison Control Center immediately.

**SYMPTOMS/EFFECTS:** Causes serious eye irritation. Causes skin irritation. May cause drowsiness or dizziness.

**NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:** Consult product labeling. No special advice.

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## SECTION 5: FIRE-FIGHTING MEASURES

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### Notes for Non-Emergency Personnel:

**EXTINGUISHING MEDIA:** In case of fire: Use carbon dioxide, dry chemical and/or foam to extinguish. Water spray may be used to soak other materials surrounding the product, to prevent the spread of the fire. Selection of a fire extinguisher should also be appropriate to address the location of the fire and equipment involved. Please review the tools available at your location to ensure proper availability of equipment.

### Notes for those trained to participate in an emergency:

**SPECIAL FIRE FIGHTING PROCEDURES:** Treat as flammable liquid. Follow National Fire Protection Association Guidelines or local guidelines appropriate for emergency response. Minimize all sources of static electricity.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Observe all appropriate precautions for handling flammable materials.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal degradation may produce oxides of carbon, nitrogen, hydrocarbons, and/or derivatives.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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### Notes for non-emergency personnel:

Consult trained response personnel for clean-up of large spills or locations where providing preliminary control of the chemical release is hazardous. Hazardous locations include areas where ignition sources cannot be controlled. Isolate the area and deny entry to unnecessary and unprotected personnel. Sections 2, 5, 7 and 8 of this document should be consulted upon use of material, to become knowledgeable of the material's hazards and how to control risks associated with handling flammable liquids.

If the location is not hazardous and only a small amount of material is released, control the spill using absorbent pads while wearing the protective equipment as noted below. Clean the area with detergent and water. Prohibit discharge to drains, soil, surface and ground waters. Dispose in accordance with Section 13 of this document.

**PERSONAL PROTECTIVE EQUIPMENT:** Nitrile or vinyl gloves, safety glasses/goggles, protective clothing (e.g. apron) may be required for clean-up of large spills. Respiratory protection is typically not necessary, but may be used depending upon the size of the spill and occupational exposure limits. Respiratory protection may include the use of organic vapor cartridges. Refer to Section 8 for additional information.

### Notes for those trained to participate in an emergency:

**ACCIDENTAL RELEASE MEASURES:** Eliminate all sources of ignition. Dike and contain the free liquid and absorb on vermiculite or spill pillows/pads. Place spent absorbents in UN specification drums for disposal. All precautions associated with controlling a flammable liquid should be employed during clean-up. Wash area completely with water. Take care to avoid contact with wet surfaces or walkways that may become slick when residue is present. Prohibit discharge to drains, soil, surface and ground waters.

Recommendations for personal protective equipment selection are noted above. Non-sparking tools should be utilized in all clean-up associated with flammable liquids. Dispose in accordance with section 13 of this document.

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## SECTION 7: HANDLING AND STORAGE

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### PRECAUTIONS FOR SAFE HANDLING:

Do not eat, drink or smoke while working with hazardous materials. Employees should be advised to wear appropriate protective equipment in the manufacturing environment. See section 8 of this document for protective equipment selection. Do not expose to heat or flame. All manufacturing should be performed indoors, in an enclosed environment free from uncontrolled ignition sources. Employees should be advised not to handle flammable products in close proximity to incompatible materials. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge.

Maintain a clean work environment which includes use of properly functioning containers, proper housekeeping practices.

### CONDITIONS FOR SAFE STORAGE:

**Storage precautions for unpackaged product (manufacturing environment):** Store in a well-ventilated place and keep cool. Keep containers closed when not in use. Minimize inventory. Use only non-sparking tools. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Appropriate fire suppression and detection equipment should be utilized. Store on spill pallets or other locations where spill containment will be easily accessible.

**Storage precautions for packaged product:** See consumer packaging.

Keep away from open drains and access to the environment.

**Incompatible materials:** Oxidizers, acids, bases. Store away from incompatible materials.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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**CONTROL PARAMETERS:** These criteria have been published by the referenced authority to establish exposure limits in the work environment. Employee work areas should be monitored to ensure that permissible limits are not exceeded during the work day. These references do not coincide with product use. These references are meant to be in association with the manufacturing environment.

### OCCUPATIONAL EXPOSURE VALUES:

Component Name (CAS-No.)	Reference	TWA		STEL/CEILING	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Ethyl Acetate (141-78-6)	OSHA PEL	400	1,400	--	--
	ACGIH TLV	400	1,440	--	--
	NIOSH REL	400	1,400	--	--
Ethyl Alcohol (64-17-5)	OSHA PEL	1,000	1,900	--	--
	ACGIH TLV	--	--	1,000	1,880
	NIOSH REL	1,000	1,900	--	--
n-Butyl Acetate (123-86-4)	OSHA PEL	150	710	--	--
	ACGIH TLV	150	713	200	950
	NIOSH REL	150	710	200	950
Heptane (142-82-5)	OSHA PEL	500	2,000	--	--
	ACGIH TLV	400	1,640	500	2,050
	NIOSH REL	85	350	440 (C)	1,800 (C)
Isopropyl Alcohol (2-Propanol) (67-63-0)	OSHA PEL	400	980	--	--
	ACGIH TLV	200	492	400	984
	NIOSH REL	400	980	500	1,225

No occupational exposure values have been published for other constituents noted in Section 3.

**WORK HYGIENIC PRACTICES:** Ensure all work surfaces are maintained, to prevent contamination.

**ENGINEERING CONTROLS:** None required for product use. For handling large quantities of material, such as in the manufacturing of product, ventilation should be utilized. This ventilation should be compatible with the control of flammable materials. Exhaust ventilation should be utilized to maintain air concentrations of material below the occupational exposure guidelines noted above.

Local exhaust ventilation is not typically required for product use. For handling large quantities of material, such as in the manufacturing of product -- Local Exhaust: Explosion proof. Mechanical (general): Explosion proof.

**PERSONAL PROTECTIVE EQUIPMENT:** Consistent with good hygiene practices, personal protective equipment (PPE) should be used in conjunction with other control measures including engineering controls, ventilation and isolation. See also Section 5 of this document for PPE advice, in the event of an emergency.

**Eye/Face Protection (Non-Emergency):** None required for product use. For handling of large quantities of liquid material, safety glasses with side shields/goggles are recommended.

**Skin Protection (Non-Emergency):** None required for product use. For handling large quantities of material, such as in product manufacturing, nitrile or vinyl gloves should be considered for use. Tyvek clothing may also be suitable for handling large quantities of material in the manufacturing environment.

**Respiratory Protection (Non-Emergency):** Respiratory protection is not required for product use. For manufacturing of product, respiratory protection may be considered. Ensure that the respirator meets current local occupational health and safety standards. Organic vapor cartridges should be utilized with filtering respiratory protection.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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<b>APPEARANCE:</b>	Clear Liquid – Pale Green		
<b>ODOR:</b>	Solvent (Acetate)		
<b>ODOR THRESHOLD:</b>	Not Available		
<b>pH:</b>	Not Applicable		
<b>MELTING/FREEZING POINT:</b>	<b>F:</b> Not Available	<b>C:</b> Not Available	
<b>BOILING POINT:</b>	<b>F:</b> 170 (as ethyl acetate) <b>C:</b> 77 (as ethyl acetate)		
<b>FLASH POINT:</b>	<b>F:</b> 39.2	<b>C:</b> 4	<b>METHOD USED:</b> Closed Cup
<b>EVAPORATION RATE:</b>	Not Available ( <b>Butyl acetate = 1</b> )		
<b>FLAMMABILITY:</b>	Not Applicable to Liquids		
<b>FLAMMABLE LIMITS IN AIR:</b>	Ethyl Acetate:	11.5% UEL;	2.0% LEL
	Ethyl Alcohol:	19% UEL;	3.3% LEL
	n-Butyl Acetate:	7.6% UEL;	1.7% LEL
	Heptane:	6.7% UEL;	1.05% LEL
	Isopropyl Alcohol:	12.7% UEL	2.0% LEL
<b>VAPOR PRESSURE (mmHg):</b>	@ 70F: Not Available	@ 21 C: Not Available	
<b>VAPOR DENSITY (AIR = 1):</b>	@ 70F: Not Available	@ 21 C: Not Available	

**RELATIVE DENSITY (H2O = 1):** Not Available

**SOLUBILITY IN WATER:** Insoluble

**PARTITION COEFFICIENT:** Not Available

**AUTOIGNITION TEMPERATURE:** Not Available

**DECOMPOSITION TEMPERATURE:** Not Available

**VISCOSITY:** Free flowing liquid

## **SECTION 10: STABILITY AND REACTIVITY**

**REACTIVITY:** Material is not considered reactive under typical handling and storage conditions.

**STABILITY:** Product is stable.

**POSSIBILITY OF HAZARDOUS REACTIONS:** None known. Hazardous polymerization is not expected to occur.

**CONDITIONS TO AVOID:** Heat, fire, flame and other sources of ignition.

**INCOMPATIBILITY (MATERIAL TO AVOID):** Oxidizers, acids, and bases.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal degradation may produce oxides of carbon, hydrocarbons, and/or derivatives.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

Where information is not listed specifically for constituents, published information was not available.

### **POTENTIAL HEALTH EFFECTS**

#### **ACUTE HEALTH EFFECTS:**

**SKIN CORROSION/IRRITATION:** Causes skin irritation

**SERIOUS EYE DAMAGE/IRRITATION:** Causes serious eye irritation

**RESPIRATORY/SKIN SENSITIZATION:** None expected

**INGESTION:** Harmful if swallowed

**INHALATION:** May cause drowsiness or dizziness

**ROUTES OF EXPOSURE:** Inhalation, eyes, skin, ingestion

**SYMPTOMS:** Causes serious eye irritation. Causes skin irritation. May cause drowsiness or dizziness.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** None known.

### **ACUTE TOXICOLOGY DATA FOR COMPONENTS**

<b>Material</b>	<b>Route</b>	<b>Species</b>	<b>Test Results</b>
Ethyl Acetate	Oral LD <sub>50</sub>	Rat (OECD 401)	4,934 mg/kg bw
Ethyl Acetate	Dermal LD <sub>50</sub>	Rabbit	> 20,000 mg/kg bw
Ethyl Acetate	LC <sub>0</sub> (4h)	Rat	29.3 mg/L air
Ethyl Alcohol	Oral LD <sub>50</sub>	Rat	> 6,200 mg/kg bw
Ethyl Alcohol	Dermal LD <sub>50</sub>	Rabbit	> 20,000 mg/kg bw
Ethyl Alcohol	LC <sub>50</sub> (4 hr)	Rat	> 8,000 mg/L air

Material	Route	Species	Test Results
Heptane – RA	Oral LD <sub>50</sub>	Rat (OECD 401)	> 5,000 mg/kg bw
Heptane – RA	Dermal LD <sub>50</sub>	Rat (OCD 402)	> 2,000 mg/kg bw
Heptane	LC <sub>50</sub> (4h) (4h)	Rat (OECD 403)	> 29.29 mg/L air
Butyl Acetate	Oral LD <sub>50</sub>	Rat (OECD 423)	10,768 mg/kg bw
Butyl Acetate	Dermal LD <sub>50</sub>	Rabbit (OECD 402)	> 14,112 mg/kg bw
Nitrocellulose	Oral LD <sub>50</sub>	Rat	5,000 mg/kg bw
Isopropyl Alcohol	Oral LD <sub>50</sub>	Rat (OECD 401)	5,840 mg/kg bw
Isopropyl Alcohol	Dermal LD <sub>50</sub>	Rabbit (OECD 402)	12,870 mg/kg bw
Isopropyl Alcohol	LC <sub>50</sub> (4h)	Rat (OECD 403)	> 25,000 mg/m <sup>3</sup> air

**Notes:** RA – Read Across to Structurally Similar Chemical

### Skin Corrosion/Irritation:

*Ethyl Acetate:* Slightly Irritating (Rabbit, OECD 404)  
*Ethyl Alcohol:* Not Irritating (Rabbit, OECD 404)  
*Butyl Acetate:* Not irritating (Rabbit, OECD 404)  
*Heptane:* Irritating (Rabbit, OECD 404) – RA  
*Nitrocellulose:* Not irritating (Rabbit)  
*Isopropyl Alcohol:* Not Irritating (Rabbit)

### Serious Eye Damage/Irritation:

*Ethyl Acetate:* Slightly irritant (Rabbit, OECD 405)  
*Ethyl Alcohol:* Not Irritating (25%)/ Mildly Irritating (50%)/ Irritating (100%) (Rabbit, OECD 405)  
*Butyl Acetate:* Not irritating (Rabbit, OECD 405)  
*Heptane:* Not Irritating (Rabbit, OECD 405) – RA  
*Nitrocellulose:* Not Irritating (Rabbit)  
*Isopropyl Alcohol:* Severely Irritating (Rabbit, OECD 405)

### Respiratory Irritation:

*Ethyl Acetate:* May Cause Irritation  
*Butyl Acetate:* May Cause Irritation  
*Nitrocellulose:* Irritating (Rat)  
*Isopropyl Alcohol:* May Cause Irritation

### Skin Sensitization:

*Ethyl Acetate:* Not Sensitizing (Guinea Pig, OECD 406)  
*Ethyl Alcohol:* Not Sensitizing (Guinea Pig)  
*Butyl Acetate:* Not Sensitizing (Guinea Pig, OECD 406)  
*Heptane:* Not Sensitizing (Guinea Pig, OECD 406) – RA  
*Isopropyl Alcohol:* Not Sensitizing (Guinea Pig, OECD 406)

### CHRONIC HEALTH HAZARDS:

#### REPEAT DOSE TOXICITY:

NOAEL (Ethyl Acetate, oral): 900 mg/kg bw/d (90d) (Rat, EPA OTS 795.2600)  
 NOEC (Ethyl Acetate, inhalation): 1.28 mg/L air (90d) (Rat, EPA OTS 795.2450)  
 NOAEL (Ethyl Alcohol, oral): >2% (2,400 mg/kg) (Rat)  
 LOAEL (Ethyl Alcohol, oral): 3% (3,600 mg/kg) (Rat)  
 NOAEL (Butyl Acetate, oral): 125 mg/kg bw/d (90d) (Rat, EPA OTS 795.2650)  
 NOAEC (Butyl Acetate, inhalation): 500 ppm (90d) (Rat, EPA OTS 795.2450)  
 NOAEC (Heptane, inhalation): 12,350 mg/m<sup>3</sup> air (26wk) (Rat, OECD 413)  
 NOAEL (Nitrocellulose, oral): 400 mg/kg bw/d (Rat)  
 NOEC (Isopropyl Alcohol, inhalation): 504 mg/kg (90d) (Rat)

**CARCINOGENICITY:**

Component Name (CAS-No.)	OSHA	ACGIH	NTP	IARC
Ethyl Alcohol (64-17-5)	--	TLV-A3	--	--
Isopropyl Alcohol (67-63-0)	--	TLV-A4	--	IARC-3

**Notes:** ACGIH TLV-A3 – Confirmed Animal Carcinogen with Unknown Relevance to Humans  
 ACGIH TLV-A4 – This reference indicates that the material is “Not Classifiable as a Human Carcinogen”.  
 IARC-3 – This reference indicates that the material is “Unclassifiable as to Carcinogenicity in Humans”

**MUTAGENICITY:**

*Ethyl Acetate:* A variety of *in vitro* and *in vivo* tests have produced negative results.  
*Ethyl Alcohol:* A variety of *in vitro* and *in vivo* tests have produced negative results.  
*Butyl Acetate:* A variety of *in vitro* and *in vivo* tests have produced negative results.  
*Heptane:* A variety of *in vitro* tests have produced negative results – RA  
*Nitrocellulose:* A variety of *in vitro* tests have produced negative results.  
*Isopropyl Alcohol:* A variety of *in vitro* and *in vivo* tests have produced negative results

**REPRODUCTIVE TOXICITY:**

*Ethyl Acetate:* NOEL: 1,500 ppm (Rat, 40 CFR 798.2450) – No effects on fertility  
*Ethyl Alcohol:* NOAEL: 20.7 g/kg/day (15%) (Mouse, OECD 416 eq.) – No effects on fertility  
*Butyl Acetate:* NOAEC: 2,000 ppm (Rat, OECD 416)  
*Heptane:* NOAEC: 31,680 mg/m<sup>3</sup> air (Rat, OECD 416)  
*Nitrocellulose:* In a three-generation study, reproduction performance was not affected.  
*Isopropyl Alcohol:* NOAEL: 1,000 mg/kg bw/d (Rat, OECD 416) – No effects on fertility

**DEVELOPMENTAL TOXICITY/TERATOGENICITY:**

*Ethyl Alcohol:* NOAEL: ≥ 20,000 ppm (Rat, OECD 414 eq.) – Incident of malformations  
*Butyl Acetate:* NOAEC: 1,500 ppm (Rat, OECD 414)  
*Heptane:* NOAEC: 10,560 mg/m<sup>3</sup> air (Mouse, OECD 414)  
*Isopropyl Alcohol:* NOEL: 400 mg/kg bw/d (Rat, OECD 414) – No effects on development

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**SECTION 12: ECOLOGICAL INFORMATION**

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Contact with the environment should be avoided. Spills and leaks should be immediately cleaned up and removed. All precautions should be taken to prevent contact with the environment. Published information regarding ingredients listed on this document area found below; where data is not listed, documentation was unavailable.

**ACUTE AND PROLONGED TOXICITY TO FISH**

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ethyl Acetate	LC <sub>50</sub> (EPA E03-05)	230 mg/L	Pimephales promelas	96 h
Ethyl Alcohol	LC <sub>50</sub>	12.9 - 15.3 g/L	Pimephales promelas	96 h
Butyl Acetate	LC <sub>50</sub> (OECD 203)	18 mg/L	Pimephales promelas	96 h
Heptane	LL <sub>50</sub> (QSAR)	5.738 mg/L	Oncorhynchus mykiss	96 h
Nitrocellulose	LC <sub>50</sub>	1,000 mg/L	Golden Orfe	48 h
Isopropyl Alcohol	LC <sub>50</sub> (OECD 203)	9,640 mg/L	Pimephales promelas	96 h

**ACUTE TOXICITY TO AQUATIC INVERTEBRATES**

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ethyl Acetate	EC <sub>50</sub> (DIN 38412, Pt.11)	3,090 mg/L	Daphnia magna	24 h
Ethyl Alcohol	EC <sub>50</sub>	5,012 mg/L	Ceriodaphnia dubia	48 h
Butyl Acetate	EC <sub>50</sub> (OECD 202)	44 mg/L	Daphnia magna	48 h
Heptane	EC <sub>50</sub>	1.5 mg/L	Daphnia magna	48 h
Nitrocellulose	LC <sub>50</sub>	1,000 mg/L	Daphnia magna	48 h
Isopropyl Alcohol	EC <sub>50</sub> (OECD 202)	9,714 mg/L	Daphnia magna	24 h



## TOXICITY TO AQUATIC PLANTS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ethyl Acetate	NOEC (OECD 201)	> 100 mg/L	Desmodesmus subspicatus	72 h
Ethyl Alcohol	EC <sub>50</sub>	675 mg/L	Chlorella vulgaris	96 h
Butyl Acetate	EC <sub>50</sub> (OECD 201)	397 mg/L	Pseudokirchneriella subcapitata	72 h
Heptane	EL <sub>50</sub> (QSAR)	4.338 mg/L	Pseudokirchneriella subcapitata	72 h
Nitrocellulose	EC <sub>50</sub>	1,000 mg/l	Algae	96 h
Isopropyl Alcohol	EC <sub>50</sub>	> 1,000 mg/l	Scenedesmus subspicatus	72 h

## TOXICITY TO MICROORGANISMS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Ethyl Acetate	EC <sub>3</sub> (DIN 38412, Pt.8)	650 mg/L	Pseudomonas putida	16 h
Ethyl Alcohol	EC <sub>50</sub>	32,100 mg/L	Photobacterium phosphoreum	15 min
Butyl Acetate	IC <sub>50</sub>	356 mg/L	Tetrahymena pyriformis	40 h
Heptane	EL <sub>50</sub> (QSAR)	22.6 mg/L	Tetrahymena pyriformis	48 h
Isopropyl Alcohol	TT (DIN 38412, Pt. 8)	1,050 mg/L	Pseudomonas putida	16 h

## PERSISTENCY AND DEGRADABILITY:

<i>Ethyl Acetate:</i>	Readily Biodegradable – 94% (28d) – OECD 301 D
<i>Ethyl Alcohol:</i>	Readily Biodegradable – 97% (28d) – OECD 301 B
<i>Butyl Acetate:</i>	Readily Biodegradable – 83% (28d) – OECD 301 D
<i>Heptane:</i>	Readily Biodegradable – 100% (25d)
<i>Isopropyl Alcohol:</i>	Readily Biodegradable – 53% (5d) – EU Method C.5

## BIOACCUMULATIVE POTENTIAL:

<i>Ethyl Acetate:</i>	log Pow: 0.68; BCF: 30 – Not expected to bioaccumulate
<i>Ethyl Alcohol:</i>	logBCF <sub>(calculated)</sub> = 0.5 (BCFWIN v2.15) – Not expected to bioaccumulate
<i>Butyl Acetate:</i>	log Pow: 2.3 (OECD 117); BCF: 15 – Not expected to bioaccumulate
<i>Heptane:</i>	BCF: 552 – Potential to bioaccumulate
<i>Isopropyl Alcohol:</i>	log Pow: 0.05 – Not expected to bioaccumulate

## SECTION 13: DISPOSAL CONSIDERATIONS

Those responsible for the performance of disposal, recycling or reclamation activities should refer to section 8 of this document for advice on personal protective equipment and exposure controls.

**WASTE DISPOSAL CONTAINERS:** Appropriate US DOT containers should be utilized which may include cardboard boxes for products, metal or plastic drums for liquids. These containers should meet the packaging specifications required for DOT compliance.

**WASTE DISPOSAL METHOD:** This product is ignitable (D001) RCRA hazardous wastes when intended for disposal. Controlled incineration at a hazardous waste facility is the recommended technology for treatment and disposal. This material must not be disposed through sewage.

### RCRA HAZARD CLASS: D001

Follow all local governmental requirements intended for disposal.

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**SECTION 14: TRANSPORT INFORMATION**

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**North American Ground Transportation**

**The classification represented below is based upon 49 CFR 171.102 SP 198 in affiliation with UN 2059 Nitrocellulose, solution, flammable**

- **IN CONSUMER PACKAGING:** Limited Quantity/Consumer Commodity (≤ 1 L)  
**UN ID Number:** UN 1266  
**PROPER SHIPPING NAME:** Perfumery products  
**HAZARD CLASS:** 3  
**PACKING GROUP:** II  
**LABEL STATEMENTS:** Exempt – Limited Quantity Marking Only
  
- **OTHER THAN CONSUMER PACKAGING:**  
**UN ID NUMBER:** UN 1266  
**PROPER SHIPPING NAME:** Perfumery Products  
**HAZARD CLASS:** 3  
**PACKING GROUP:** II  
**LABEL STATEMENTS:** Flammable Liquid

**Transport Via Water**

**The classification represented below is based upon IMDG code SP 198 in affiliation with UN 2059 Nitrocellulose, solution, flammable.**

- **IN CONSUMER PACKAGING:** Limited Quantity (≤ 5L)  
**UN ID NUMBER:** UN 1266  
**PROPER SHIPPING NAME:** Perfumery Products  
**HAZARD CLASS:** 3  
**PACKING GROUP:** II  
**LABEL STATEMENTS:** Exempt – Limited Quantity Marking Only
  
- **OTHER THAN CONSUMER PACKAGING:**  
**UN ID NUMBER:** UN 1266  
**PROPER SHIPPING NAME:** Perfumery Products  
**HAZARD CLASS:** 3  
**PACKING GROUP:** II  
**LABEL STATEMENTS:** Flammable Liquid

**Transport Via Air (Domestic/International)**

**The classification represented below is based upon 49 CFR 171.102 SP 198 and IATA DGR SP A91 in affiliation with UN 2059 Nitrocellulose, solution, flammable.**

- **IN CONSUMER PACKAGING:** Limited Quantity – ID 8000, Consumer Commodity (≤ 0.5 L)  
**UN ID NUMBER:** ID 8000  
**PROPER SHIPPING NAME:** Consumer Commodity  
**HAZARD CLASS:** 9  
**PACKING GROUP:** N/A  
**LABEL STATEMENTS:** Miscellaneous – Dangerous Goods & Limited Quantity Marking

• **OTHER THAN CONSUMER PACKAGING:**

**UN ID NUMBER:** UN 1266  
**PROPER SHIPPING NAME:** Perfumery Products  
**HAZARD CLASS:** 3  
**PACKING GROUP:** II  
**LABEL STATEMENTS:** Flammable Liquid

Please be aware of carrier transport variations before shipping hazardous materials

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**SECTION 15: REGULATORY INFORMATION**

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**National Fire Protection Association Codes:** Health: 2 Fire: 3 Reactivity: 0 Other: None

**Workplace Hazardous Materials Identification System:** Class B Flammable Material; Class D; Division 2, Subdivision B; Eye/Skin Irritation

This regulatory information represents the product, in its consumer packaging.

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**SECTION 16: OTHER INFORMATION**

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**PREPARATION INFORMATION:** This is the first issuance of this document.

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