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## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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

**Emergency Telephone Number:**  
1-800-535-5053 US (International: 352-323-3500)

**For further information:**  
1-732-499-2741

**Poison Control Number:** 1-412-390-3326

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**Product Name: Water Based Aerosols Hair Mousses – NFPA Level 1 Aerosol**

**Recommendations on use:** Personal care aerosol-packaged product used on hair for styling purposes.

**Restrictions on use:** For external use only. Use only as directed.

**This document is written for the packaged product (aerosol can containing propellants) with references to the dispensed or unpackaged product (liquid/gel or foam) to identify hazards as necessary.**

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## SECTION 2: HAZARDS IDENTIFICATION

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**Signal word: DANGER**

Symbol	Classification	Hazard Statement	Prevention Statements
	Aerosols Category 1	Extremely flammable aerosol.  Pressurized container: May burst if heated.	<ul style="list-style-type: none"><li>• Keep away from heat/sparks/open flames/hot surfaces. No smoking.</li><li>• Do not spray on an open flame or other ignition source.</li><li>• Do not pierce or burn, even after use.</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.

Hazards Not Otherwise Classified: Over-exposure may cause irritation to eyes.

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

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Only hazardous constituents associated with this product are listed below

<u>INGREDIENT:</u>	<u>CAS NO</u>	<u>% WT</u>
Difluoroethane	75-37-6	<13%
Isobutane	75-28-5	<10%
Dimethyl Ether	115-10-6	<5%
Isopentane	78-78-4	<3%
Propane	74-98-6	<3%

Ingredients listed below may be contained in those products having an SPF

Homosalate	118-56-9	≤ 15.0%
Octocrylene	6197-30-4	≤ 10.0%
Octinoxate	5466-77-3	≤ 7.5%
Oxybenzone	131-57-7	≤ 6.0%
Octisalate	118-60-5	≤ 5.0%
Avobenzene	70356-09-1	≤ 3.0%

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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 for at least 20 minutes or until material is sufficiently removed from the eye. **If eye irritation persists:** Get medical advice/attention if irritation or other symptoms occurs.

**IF ON SKIN: If skin irritation occurs:** Get medical attention. Remove all contaminated clothing and launder before reuse.

**IF INHALED:** Remove victim to fresh air and keep in a rest 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:** Overexposure may cause irritation to eyes.

**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, foam and/or water spray for extinction. 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 AND EXPLOSION HAZARDS:** Treat as an NFPA Level 1 aerosol. Contents are under pressure. Follow National Fire Protection Association Guidelines or local guidelines appropriate for emergency response.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** The final product is offered under pressure. Observe all appropriate precautions for handling aerosol containers. The propellants are flammable liquefied gases. The dispensed liquid product is not flammable.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Thermal degradation may produce oxides of carbon 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 can not be controlled. Isolate the area and deny entry to unnecessary and unprotected personnel. It is vital that Sections 2, 5, 7 and 8 of this document should be consulted before an accident occurs, to control any risks in handling aerosols and industrial liquids.

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

**PERSONAL PROTECTIVE EQUIPMENT:** Plastic or rubber gloves, apron may be required for clean-up of large spills. Respiratory protection may need to be utilized, depending upon the size of the spill. Respiratory protection may include the use of organic vapor cartridges. Protective goggles or face shield is recommended for the control of liquid. See also section 8 of this document.

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

**ACCIDENTAL RELEASE MEASURES:** Since this product is a sealed aerosol, accidental discharge of contents is unlikely unless the can is punctured. Should can puncture occur, dike and contain the free liquid and absorb on vermiculite or spill pillows/pads. Place spent absorbents in appropriate sturdy containers for disposal. Prohibit discharge to drains, soil, surface and ground waters.

Recommendations for personal protective equipment selection are noted above. 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:**

Aerosols should be handled in a manner that minimizes the risk of puncture – caps should be replaced after use. Containers should be held in an upright position during use. Employees should not eat, drink or smoke while working with this material. Employees should be advised to wear appropriate protective equipment in the manufacturing environment. See section 8 of this document for protective equipment selection. All manufacturing should be performed indoors, in an enclosed environment.

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. Keep cool. Keep containers tightly closed. Store on spill pallets or other locations where spill containment will be easily accessible.

**Storage precautions for aerosol packaged product:** Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Use of an enclosed storage area with easy access is recommended for aerosol containers. Fire suppression and detection equipment compliant with NFPA 30B should be utilized. All aerosols should be stored in an upright position. Refer to consumer packaging for additional storage conditions.

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>
Isobutane (75-28-5)	OSHA PEL	--	--	--	--
	ACGIH TLV	--	--	1000	2370
	NIOSH REL	--	--	--	--
Isopentane (78-78-4)	OSHA PEL	1000	2950	--	--
	ACGIH TLV	600	1770	--	--
	NIOSH REL	--	--	--	--
Propane (74-98-6)	OSHA PEL	1000	1800	--	--
	ACGIH TLV	--	--	--	--
	NIOSH REL	1000	1800	--	--
Butane (106-97-8)	OSHA PEL	--	--	--	--
	ACGIH TLV	--	--	1000	2370
	NIOSH REL	800	1900	--	--

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. Testing of aerosol cans should only be performed when appropriate equipment is available.

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 or 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. For testing of pressurized cans, face shields or other equipment that protects the eyes/face should be considered for use.

**Skin Protection (Non-Emergency):** None required for product use. For handling large quantities of material, such as in product manufacturing, plastic or rubber 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>	Aerosol can dispensing foam.	
<b>ODOR:</b>	Mild	
<b>ODOR THRESHOLD:</b>	Not Available	
<b>pH:</b>	Not Available	
<b>MELTING/FREEZING POINT:</b>	<b>F:</b> N/A	<b>C:</b> N/A
<b>BOILING POINT:</b>	<b>F:</b> N/A	<b>C:</b> N/A
<b>FLASH POINT:</b>	<b>F:</b> <0F (propellants); <b>F:</b> >200 (dispensed product) <b>METHOD USED:</b> Closed Cup	
<b>EVAPORATION RATE:</b>	<1 for dispensed product ( <b>Butyl acetate = 1</b> )	
<b>FLAMMABLE LIMITS IN AIR:</b>	Butane & Isobutane, Upper: 8.4% Lower:1.6% Propane, Upper: 9.5% Lower: 2.1%	
<b>VAPOR PRESSURE (mmHg):</b>	@ <b>70 F:</b> 2500 – 5500; @ <b>21 C:</b> 2500 -- 5500	
<b>VAPOR DENSITY (AIR = 1):</b>	@ <b>70 F</b> F: >1; @ <b>21 C:</b> >1	
<b>RELATIVE DENSITY (H2O = 1):</b>	compressed liquid ~ 1; foam <1	
<b>SOLUBILITY IN WATER:</b>	Soluble	
<b>PARTITION COEFFICIENT:</b>	Not Available	
<b>AUTOIGNITION TEMPERATURE</b>	Not Available	
<b>DECOMPOSITION TEMPERATURE:</b>	Not Available	
<b>VISCOSITY:</b>	Not Available	

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## SECTION 10: STABILITY AND REACTIVITY

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**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:** Direct sunlight, temperatures exceeding 50°C/122°F, fire, flame and other sources of heat.

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

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

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**SECTION 11: TOXICOLOGICAL INFORMATION**

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

**POTENTIAL HEALTH EFFECTS**

**ACUTE HEALTH EFFECTS:**

**SKIN CORROSION/IRRITATION:** None expected

**SERIOUS EYE DAMAGE/IRRITATION:** Overexposure may cause eye irritation

**RESPIRATORY/SKIN SENSITIZATION:** None expected

**INGESTION:** Harmful if swallowed

**INHALATION:** May be irritating if overexposure occurs.

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

**SYMPTOMS:** Watering, stinging or itching of eyes may occur with over-exposure to the product.

**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>
Difluoroethane	LC <sub>50</sub> (4 hr)	Rat	383,000 ppm
Isobutane	LC <sub>50</sub> (2 hr)	Mouse	1,237 mg/L
Dimethyl Ether	LC <sub>50</sub> (4 hr)	Rat	164,000 ppm
Isopentane	LC <sub>50</sub> (4 hr, vapor)	Rat	280,000 mg/m <sup>3</sup>
Propane	LC <sub>50</sub> (15 min)	Rat	> 1,443 mg/L
Butane	LC <sub>50</sub> (4 hr)	Rat	658 ppm
Homosalate	Oral LD50	Rat	> 8,000 mg/kg
Homosalate	Dermal LD50	Rabbit	> 5,000 mg/kg
Octocrylene	Oral LD50	Rat	> 5,000 mg/kg
Octocrylene	Dermal LD50	Rat	> 2,000 mg/kg
Octinoxate	Oral LD50	Rat	> 5,000 mg/kg
Octinoxate	Dermal LD50	Rat	> 5,000 mg/kg
Octinoxate	LC50 (4 hr)	Rat	> 0.511 mg/L
Oxybenzone	LD50 (Oral)	Rat	>5,000 mg/kg
Oxybenzone	LD50 (Dermal)	Rat	>16,000 mg/kg
Octisalate	LD50 (Oral)	Rat	>5,000 mg/kg
Octisalate	LD50 (Dermal)	Rabbit	>5,000 mg/kg
Avobenzone	LD50 (Oral)	Rat	>16,000 mg/kg
Avobenzone	LD50 (Dermal)	Rat	> 1,000 mg/kg

**Skin Corrosion/Irritation:**

<i>Isobutane:</i>	Liquefied Gas can Cause Frostbite
<i>Isopentane:</i>	Slightly Irritating (In liquid form)
<i>Propane:</i>	Liquefied Gas can Cause Frostbite
<i>Butane:</i>	Liquefied Gas can Cause Frostbite
<i>Homosalate:</i>	Not Irritating (Guinea Pig)
<i>Octocrylene:</i>	Not Irritating (Rabbit)
<i>Octinoxate:</i>	Not Irritating (Rabbit)
<i>Oxybenzone:</i>	Not Irritating (Rabbit)
<i>Octisalate:</i>	Slight Irritant (Rabbit)
<i>Avobenzon:</i>	Not Irritating (Human Patch Test)

**Serious Eye Damage/Irritation:**

<i>Isobutane:</i>	Liquefied Gas can Cause Frostbite
<i>Isopentane:</i>	Slightly Irritating (In liquid form)
<i>Propane:</i>	Liquefied Gas can Cause Frostbite
<i>Butane:</i>	Liquefied Gas can Cause Frostbite
<i>Homosalate:</i>	Slight Irritant (Rabbit)
<i>Octocrylene:</i>	Not Irritating (Rabbit)
<i>Octinoxate:</i>	Slight Irritant (Rabbit)
<i>Oxybenzone:</i>	Not Irritating (Rabbit)
<i>Octisalate:</i>	Slight Irritant (Rabbit)
<i>Avobenzon:</i>	Not Irritating (Rabbit)

**Respiratory Irritation:**

<i>Isopentane:</i>	Irritating
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**Skin Sensitization:**

<i>Isopentane:</i>	Not sensitizing (Guinea Pig)
<i>Homosalate:</i>	Not sensitizing
<i>Octocrylene:</i>	Not sensitizing (Magnusson & Kligman)
<i>Octinoxate:</i>	Not sensitizing
<i>Oxybenzone:</i>	Not sensitizing
<i>Octisalate:</i>	Not sensitizing
<i>Avobenzon:</i>	Not sensitizing

**CHRONIC HEALTH HAZARDS:**

**REPEAT DOSE TOXICITY**

NOAEL (Difluoroethane, inhalation, rat): 2.5% (OECD Guideline 453)  
 NOAEC (Isobutane, inh, rat): 21,394 mg/m<sup>3</sup> air  
 NOAEL (Dimethyl Ether, oral, rat): 47106 mg/m<sup>3</sup>  
 NOAEL (Isopentane, oral, rat): 2.0 g/kg/day  
 NOAEC (Propane, inh, rat): 7,214 mg/m<sup>3</sup> air  
 NOAEC (Butane, inh, rat): 21,394 mg/m<sup>3</sup> air  
 NOAEL (Homosalate, oral, rat): 100 mg/kg bw

NOAEL (Octinoxate, oral, rat): 450 mg/kg day  
 NOEL (Octisalate, oral, rat); 250 mg/kg/day;  
 NOAEL (Avobenzone, oral, rat): 450 mg/kg bw/d  
 NOAEL (Avobenzone, dermal, rat): 230 mg/kg bw/d

**CARCINOGENICITY**

Component Name (CAS-No.)	OSHA	ACGIH	NTP	IARC
No carcinogenic constituents	--	--	--	--

**MUTAGENICITY:**

*Difluoroethane:* A variety of *in vivo* tests have produced negative results.  
*Isobutane:* A variety of *in vitro* tests have produced negative results.  
*Dimethyl Ether:* A variety of *in vitro* tests have produced negative results.  
*Isopentane:* Standard Ames Assays study produced negative results.  
*Butane:* A variety of *in vitro* and *in vivo* tests have produced negative results  
*Propane:* A variety of *in vitro* tests have produced negative results.  
*Homosalate:* A variety of *in vitro* tests have produced negative results.  
*Octocrylene:* A variety of *in vitro* and *in vivo* tests have produced negative results.  
*Octinoxate:* A variety of *in vitro* and *in vivo* tests have produced negative results.  
*Avobenzone:* A variety of *in vitro* and *in vivo* tests have produced negative results.

**REPRODUCTIVE TOXICITY:**

*Difluoroethane:* No observable effects on mating were seen.  
*Isobutane:* NOAEC: 7,131 mg/m<sup>3</sup> air (OECD 422) – No indications of reproductive toxicity in studies  
*Dimethyl Ether:* No observable effects on mating were seen at concentrations 2.5% (highest concentration tested)  
*Butane* NOAEC: 21,394 mg/m<sup>3</sup> air (OECD 422) – No indications of reproductive toxicity in studies  
*Propane* NOAEC: 21,641 mg/m<sup>3</sup> air (OECD 422) – No indications of reproductive toxicity in studies

**DEVELOPMENTAL TOXICITY/TERATOGENICITY:**

*Difluoroethane:* No observable effects on were seen. NOAEL: 50,000ppm  
*Isobutane:* NOAEC: 7,131 mg/m<sup>3</sup> air (OECD 422) – No indications of developmental toxicity in studies  
*Dimethyl Ether:* No observable effects on were seen. NOAEL: 40,000 ppm  
*Propane* NOAEC: 21,641 mg/m<sup>3</sup> air (OECD 422) – No indications of developmental toxicity in studies  
*Butane* NOAEC: 21,394 mg/m<sup>3</sup> air (OECD 422) – No indications of developmental toxicity in studies  
*Octocrylene:* No indications of developmental toxicity or teratogenic effect in studies.  
*Octinoxate:* Not teratogenic  
*Avobenzone:* Not teratogenic

## SECTION 12: ECOLOGICAL INFORMATION

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	SPEICIES	EXPOSURE
Difluoroethane	LC <sub>50</sub>	295.8 mg/L	Fish	96 h
Isobutane	LC <sub>50</sub> (QSAR Calculation)	27.98 mg/L	Not Specified	96 h
Dimethyl Ether	LC <sub>50</sub>	>4.1 g/L	Fish	96 h
Isopentane	LC <sub>50</sub> (QSAR Calculation)	12.8 mg/L	Not Specified	96 h
Propane	LC <sub>50</sub> (QSAR Calculation)	49.9 mg/L	Not Specified	96 h
Butane	LC <sub>50</sub> (QSAR Calculation)	24.11 mg/L	Not Specified	96 h
Octocrylene	LC <sub>50</sub> (DIN 38412, Pt 15)	> 10,000 mg/L	Leuciscus idus	96 h
Octinoxate	LC <sub>50</sub> (OECD 203)	> 100 mg/L	Cyprinus carpio	96 h
Oxybenzone	LC <sub>50</sub> (DIN 38412, Pt 15)	100 - 220 mg/L	Leuciscus idus	96 h
Avobenzone	LC <sub>50</sub> (OECD 203)	> 100 mg/L	Cyprinus carpio	96 h

### ACUTE TOXICITY TO AQUATIC INVERTEBRATES

INGREDIENT NAME	TEST	RESULT	SPEICIES	EXPOSURE
Difluoroethane	EC <sub>50</sub>	146.695 mg/L	Daphnia Magna	48 h
Isobutane	EC <sub>50</sub> (QSAR Calculation)	16.33 mg/L	Daphnid	48 h
Dimethyl Ether	EC <sub>50</sub>	>4.4 g/L	Daphnia Magna	48 h
Isopentane	EC <sub>50</sub> (OECD 202)	2.3 mg/L	Daphnia magna	48 h
Propane	EC <sub>50</sub> (QSAR Calculation)	27.14 mg/L	Daphnid	48 h
Butane	EC <sub>50</sub> (QSAR Calculation)	14.22 mg/L	Daphnid	48 h
Octocrylene	EC <sub>50</sub> (OECD 202)	≥ 100 mg/L	Daphnia Magna	48 h
Octinoxate	EC <sub>50</sub> (OECD 202)	> 0.027 mg/L	Daphnia Magna	48 h
Oxybenzone	EC <sub>50</sub> (OECD 202)	1.9 mg/L	Daphnia Magna	48 h
Avobenzone	EC <sub>50</sub> (OECD 202)	> 100 mg/L	Daphnia Magna	48 h

### TOXICITY TO AQUATIC PLANTS

INGREDIENT NAME	TEST	RESULT	SPEICIES	EXPOSURE
Difluoroethane	EC <sub>50</sub>	47.76 mg/L	Green Algae	96 h
Isobutane	EC <sub>50</sub> (QSAR Calculation)	8.57 mg/L	Green Algae	96 h
Dimethyl Ether	EC <sub>50</sub>	154.9 mg/L	Green Algae	96 h
Isopentane	EL <sub>50</sub> (QSAR Calculation)	25.12 mg/L	Selenastrum capricornutum	72 h
Propane	EC <sub>50</sub> (QSAR Calculation)	11.89 mg/L	Green Algae	96 h
Butane	EC <sub>50</sub> (QSAR Calculation)	7.71 mg/L	Green Algae	96 h
Octocrylene	EC <sub>50</sub> (OECD 201)	> 220 mg/L	Desmodesmus subspicatus	72 h
Octinoxate	EC <sub>50</sub> (OECD 201)	> 100 mg/L	Scenedesmus capricornutum	96 h

Oxybenzone	EC <sub>50</sub>	0.67 mg/L	Pseudokirchnerella Subcapita	72 h
Avobenzone	EC <sub>50</sub> (OECD 201)	> 100 mg/L	Scenedesmus capricornutum	72 h

## TOXICITY TO MICROORGANISMS

INGREDIENT NAME	TEST	RESULT	SPECIES	EXPOSURE
Dimethyl Ether	EC <sub>10</sub>	1600 mg/L	Pseudomonas Putida	--
Isopentane	EL <sub>50</sub> (QSAR Calculation)	130.9 mg/L	Tetrahymena pyriformis	48 h
Octocrylene	EC <sub>50</sub> (OECD 209)	> 10,000 mg/L	Activated Sludge	30 min
Octinoxate	EC <sub>50</sub> (OECD 301F)	100 mg/L	Activated Sludge	30 min
Oxybenzone	EC <sub>50</sub> (DIN 38412 Pt. 27)	> 10,000 mg/L	Activated Sludge	30 min
Avobenzone	NOEC (OECF 301F)	100 mg/L	Activated Sludge	28 days

## PERSISTENCY AND DEGRADABILITY:

<i>Isobutane:</i>	Readily Biodegradable – 50.0% (3.1 d) (Calculated)
<i>Isopentane:</i>	Readily Biodegradable – OECD 301 F – 71% @ 28d
<i>Propane:</i>	Readily Biodegradable – 50.0% (3.0d) (Calculated)
<i>Butane:</i>	Readily Biodegradable – 65.7% (35d)
<i>Octocrylene:</i>	Not Readily Biodegradable – OECD 301 F – 0-10% (28d)
<i>Octinoxate:</i>	Readily Biodegradable – OECD 301F – 78% (28 d); 69% (10d)
<i>Oxybenzone:</i>	Not Readily Biodegradable – OECD 301F – 60-70% (28 d)

## BIOACCUMULATIVE POTENTIAL:

<i>Isobutane:</i>	Not likely to bioaccumulate (1.97)
<i>Isopentane:</i>	Log Kow: 136-171 – Slightly bioaccumulable
<i>Butane:</i>	Log Kow: 2.89 – Not likely to bioaccumulate
<i>Octocrylene:</i>	BCF <sub>ss</sub> = 915 (OECD 305, Danio Rerio) – Potential to bioaccumulate
<i>Octinoxate:</i>	BCF <sub>ss</sub> = 433 (Conc: 0.084 mg/L); BCF 175 (Conc: 0.731 mg/L)(OECD 305 – Oncorhynchus mykiss)
<i>Oxybenzone:</i>	BCF: 39-160 (OECD 305, Cyprinus Carpio) – Potential to bioaccumulate

The product ingredients are expected to be safe for the environment at the concentrations predicted under normal use and accidental spill scenarios.

## 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:** Cans should have caps in place during waste consolidation or dispenser buttons/actuators removed. Appropriate U.S. 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 exhibits the RCRA characteristic of ignitability (D001) when intended for disposal. Controlled incineration at a hazardous waste facility is the recommended technology for treatment and disposal. Material must not be disposed of 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**

- **IN CONSUMER PACKAGING:** Limited Quantity/Consumer Commodity
  - UN ID Number:** UN 1950
  - Proper Shipping Name:** Aerosols
  - Hazard Class:** 2.1
  - Packing Group:** N/A
  - Label Statements:** Flammable Gas (Division 2.1)
- **LIQUID WITHOUT PROPELLANT:** Non-hazardous/Not Regulated

### **Transport Via Water**

- **IN CONSUMER PACKAGING:** Limited Quantity
  - UN ID Number:** UN 1950
  - Proper Shipping Name:** Aerosols
  - Hazard Class:** 2.1
  - Packing Group:** N/A
  - Label Statements:** Flammable Gas (Division 2.1)
- **LIQUID WITHOUT PROPELLANT:** Non-Hazardous/Not Regulated

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

- **IN CONSUMER PACKAGING:** Limited Quantity – ID 8000, Consumer Commodity
  - UN ID Number:** UN 1950
  - Proper Shipping Name:** Aerosols
  - Hazard Class:** 2.1
  - Packing Group:** N/A
  - Label Statements:** Flammable Gas (Division 2.1)
- **LIQUID WITHOUT PROPELLANT:** Non-Hazardous/Not Regulated

**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: 1 Fire: 4 Reactivity: 0 Other: None

**Workplace Hazardous Materials Identification System:** Class B Division 5 Flammable Aerosol

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 document replaces the version dated September 10, 2007 and all previous versions of material safety data sheets related to this products.

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