SAFETY DATA SHEET



1. Identification

Product identifier	L'ORÉAL PROFESSIONNEL TECNI.ART HOLLYWOOD WAVES SPIRAL QUEEN	
Other means of identification		
SDS number	21-91-0000085	
Recommended use	Personal care product used for cosmetic effect.	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier	/Distributor information	
US Address:	L'Oreal USA Products. Inc	
	133 Terminal Avenue	
	Clark, NJ 07066	
	USA	
Canadian Address:	L'Oreal Canada	
	4895 rue Hickmore	
	Ville St-Laurent, H4T 1K5	
	Canada	
Emergency Phone # :	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 # :	412-390-3326	

2. Hazard(s) identification

Physical hazards	Flammable aerosols	Category 1
	Gases under pressure	Liquefied gas
Health hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements	•	
Signal word	Danger	

Supplemental information	None.
Hazard(s) not otherwise classified (HNOC)	None known.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Storage	Protect from sunlight. Store in a well-ventilated place. Do not expose to temperatures exceeding 50°C/122°F.
Response	Wash hands after handling.
Prevention	Keep away from heat/sparks/open flames/hot surfaces No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use.
Precautionary statement	
Hazard statement	Extremely flammable aerosol. Contains gas under pressure; may explode if heated.
Signal word	Danger

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
ISOBUTANE		75-28-5	2.8
MYRISTIC ACID		544-63-8	2.4
BUTANE		106-97-8	1.2
PROPANE		74-98-6	1

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	No specific first aid measures noted.
Ingestion	Not likely, due to the form of the product. In the unlikely event of swallowing contact a physician or poison control center.
Most important symptoms/effects, acute and delayed	Not available.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).	
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.	
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.	
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.	
Fire fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.	
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.	
General fire hazards	Extremely flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame.	
6. Accidental release measures		

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.
F	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Dressutions for sefe bandling	Drazourized containery. Do not nierze er hurn, even efter veg. Do not veg if enrov hutten is missing	
Precautions for safe handling	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Close valve after each use and when empty. Protect containers from physical damage; do not drag, roll, slide, or drop. When moving containers, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport container. Suck back of water into the container must be prevented. Do not allow backfeed into the container. Purge air from system before introducing gas. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Do not re-use empty containers. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.	
Conditions for safe storage,	Level 1 Aerosol.	
including any incompatibilities	Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in tightly closed container. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Keep out of the reach of children. Store away from incompatible materials (see Section 10 of the SDS).	
8. Exposure controls/personal protection		

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Туре	Value
PROPANE (CAS 74-98-6)	PEL	1800 mg/m3
		1000 ppm
US. ACGIH Threshold Limit	Values	
Components	Туре	Value
BUTANE (CAS 106-97-8)	STEL	1000 ppm
ISOBUTANE (CAS 75-28-5)	STEL	1000 ppm
US. NIOSH: Pocket Guide to	Chemical Hazards	
Components	Туре	Value
BUTANE (CAS 106-97-8)	TWA	1900 mg/m3
		800 ppm
ISOBUTANE (CAS 75-28-5)	TWA	1900 mg/m3
		800 ppm
PROPANE (CAS 74-98-6)	TWA	1800 mg/m3
		1000 ppm
ological limit values	No biological exposure limits noted	for the ingredient(s).
propriate engineering ntrols	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.	
lividual protection measures,	such as personal protective equip	ment
Eye/face protection	Applicable for industrial settings onl	y. Wear safety glasses with side shields (or goggles).
Skin protection Hand protection	n Applicable for industrial settings only. Wear appropriate chemical resistant gloves. Applicable for industrial settings only. Wear suitable protective clothing.	
Other		
Respiratory protection	Applicable for industrial settings only. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.	
Thermal hazards	Wear appropriate thermal protective	e clothing, when necessary.

When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Aerosol.
Color	White.
Odor	Characteristic.
Odor threshold	Not available.
рН	7.2 - 7.8 (liquid)
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 212 °F (> 100 °C) (liquid)
Flash point	> 212.0 °F (> 100.0 °C) Closed Cup (liquid)
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or expl	osive limits
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Heat of combustion (NFPA 30B)	5.5 kJ/g
Oxidizing properties	Not oxidizing.
10. Stability and reactivity	
Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Information on likely routes of e	•		
Inhalation	Prolonged inhalation may be		
Skin contact	No adverse effects due to skin contact are expected.		
Eye contact	No adverse effects due to eye contact are expected. Expected to be a low ingestion hazard.		
Ingestion			
Symptoms related to the physical, chemical and toxicological characteristics	Not available.		
Information on toxicological eff	fects		
Acute toxicity	Not known.		
Product	Species	Test Results	
L'ORÉAL PROFESSIONNEL TEC	CNI.ART HOLLYWOOD WAVES	SPIRAL QUEEN	
Acute			
Dermal			
ATEmix		354600 mg/kg	
Oral			
ATEmix		1.111e+006 mg/kg	
Components	Species	Test Results	
BUTANE (CAS 106-97-8)			
Acute			
Inhalation			
Gas LC50	Mouse	1027 mg// 0 Hours	
		1237 mg/l, 2 Hours	
MYRISTIC ACID (CAS 544-63-8) Acute			
Oral			
LD50	Rat	> 10000 mg/kg	
Skin corrosion/irritation	Due to partial or complete lac skin contact are expected.	k of data the classification is not possible. No adverse effects due to	
Irritation Corrosion - SI BUTANE			
Serious eye damage/eye irritation	Due to partial or complete lac eye contact are expected.	k of data the classification is not possible. No adverse effects due to	
Irritation Corrosion - E BUTANE	-	Result: Contact with liquid form may cause frostbite.	
Respiratory or skin sensitizatio			
Respiratory sensitization		k of data the classification is not possible.	
Skin sensitization		k of data the classification is not possible.	
Germ cell mutagenicity	Due to partial or complete lac	k of data the classification is not possible.	
Mutagenicity BUTANE		Result: In vitro and in vivo tests did not show mutagenic effects.	
Carcinogenicity	Not classifiable as to carcinoc classification is not possible.	genicity to humans. Due to partial or complete lack of data the	
Not listed.	Evaluation of Carcinogenicity ed Substances (29 CFR 1910.1		
Not regulated.			
	ogram (NTP) Report on Carcir	logens	
Reproductive toxicity	Due to partial or complete lac	k of data the classification is not possible.	

Developmental effects BUTANE Reproductivity BUTANE Specific target organ toxicity -	19678 mg/m ³ OECD 422 Result: NOAEC Species: Rat 7131 mg/m ³ OECD 422 Result: NOAEC Species: Rat Due to partial or complete lack of data the classification is not possible.	
single exposure		
Specific target organ toxicity - repeated exposure BUTANE	Due to partial or complete lack of data the classification is not possible. 7214 mg/m ³ OECD 422 Result: NOAEC Species: Rat Test Duration: 28 d	
Aspiration hazard	Due to partial or complete lack of data the classification is not possible.	
12. Ecological information		
Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.	
Persistence and degradability		
Biodegradability Percent degradation (Ae BUTANE	erobic biodegradation) 100 % Result: Readily Biodegradable Test Duration: 385.5 Hours	
Bioaccumulative potential		
Partition coefficient n-octand BUTANE ISOBUTANE MYRISTIC ACID PROPANE	ol / water (log Kow) 2.89 2.76 6.11 2.36	
Mobility in soil	No data available.	
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.	
13. Disposal consideration	IS	
Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.	
Local disposal regulations	Dispose in accordance with all applicable regulations.	
Hazardous waste code	This product is ignitable (D001) RCRA hazardous wastes when intended for disposal.	
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).	
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.	
14. Transport information		
DOT		

FINISHED GOODS	
UN number	UN1950
UN proper shipping name	AEROSOLS, FLAMMABLE, Limited Quantity
Class	2.1
Packing group	Not applicable.
Transport hazard class(es)	
Label(s)	Limited Quantity
Packaging exceptions	306

BULK

Not regulated as dangerous goods.

ΙΑΤΑ

FINISHED GOODS

UN number	ID8000
UN proper shipping name	CONSUMER COMMODITY
Class	9 - Class 9
Packing group	Not applicable.
ERG Number	9L

BULK

Not regulated as dangerous goods.

IMDG

FINISHED GOODS

UN number UN proper shipping name Class Packing group Environmental Hazards	UN1950 AEROSOLS, FLAMMABLE, Limited Quantity 2.1 Not applicable.
Marine pollutant Transport hazard class(es)	No.
Label(s)	Limited Quantity
EmS BULK	F-D, S-U

Not regulated as dangerous goods.

General information

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers: Ensure that containers are firmly secured. Ensure cylinder valve is closed and not leaking. Ensure valve outlet cap nut or plug (where provided) is correctly fitted. Ensure valve protection device (where provided) is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

BUTANE (CAS 106-97-8)	Listed.
ISOBUTANE (CAS 75-28-5)	Listed.
PROPANE (CAS 74-98-6)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No (Exempt) chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) BUTANE (CAS 106-97-8) ISOBUTANE (CAS 75-28-5) PROPANE (CAS 74-98-6)

Safe Drinking Water Act Not regulated. (SDWA)

16. Other information, including date of preparation or last revision

Issue date	09-10-2019
Version #	01
NFPA ratings	Health: 0 Flammability: 4 Instability: 0
Disclaimer	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.