

Material Safety Data Sheet

Ouidad Curl Last™ Flexible-Hold Hairspray



1. Product and company identification

Product name : Ouidad Curl Last™ Flexible-Hold Hairspray
Manufacturer : Zotos International, INC
100 Tokeneke Road,
Darien, CT 06820
www.zotos.com
Validation date : 2/5/2014.
In case of emergency (800) 584-8038 [24 Hours]
Telephone number (203) 656-7859 [8:30 a.m. - 5:00 p.m.]
Transportation Emergency Contact: CHEMTREC 1-800-424-9300 [US/Canada 24 Hours]
Product type : Aerosol.

2. Hazards identification

Emergency overview

NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. Additional information on toxicological endpoints is available from the supplier upon request

Color : Colorless to light yellow.

Odor : Characteristic. Fragrance-like.

Hazard statements : FLAMMABLE AEROSOL. CAUSES EYE IRRITATION. MAY CAUSE SKIN IRRITATION.

Precautionary measures : Avoid contact with eyes, skin and clothing. Keep away from heat, sparks, open flames and 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. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Wash thoroughly after handling.

OSHA/HCS status : None.

Potential acute health effects

Inhalation : May cause respiratory irritation. Avoid breathing vapor.

Ingestion : NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.

Skin : NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. Mild irritant

Eyes : May cause slight transient irritation.

Potential chronic health effects

Chronic effects : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Over-exposure signs/symptoms : None identified.

Medical conditions aggravated by over-exposure : None.

See toxicological information (Section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
Alcohol Denat.	64-17-5	46.08
1,1-difluoroethane	75-37-6	28.08
Butane	106-97-8	7.92

Canada

Name	CAS number	%
Alcohol Denat.	64-17-5	46.08
1,1-difluoroethane	75-37-6	28.08
Butane	106-97-8	7.92

Mexico

Name	CAS number	UN number	%	IDLH	Classification			
					H	F	R	Special
Alcohol Denat.	64-17-5	UN1993	46.08	3300 ppm	2	3	0	-
Butane	106-97-8	UN1954	7.92	-	0	4	0	-

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

- Eye contact** : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.
- Skin contact** : Remove contaminated clothing and shoes. Wash with plenty of soap and water.
- Inhalation** : Move affected person to fresh air.
- Ingestion** : NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED. Treat symptomatically. Never give anything by mouth to an unconscious person. Call a physician.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : None.

5. Fire-fighting measures

- Flammability of the product** : Flammable liquid. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits.
- Extinguishing media** : Use dry chemical, CO₂, alcohol-resistant foam or water spray (fog).
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Unusual fire/explosion hazards** : None known.
- Hazardous thermal decomposition products** : may be released including hydrofluoric and/or carbonyl halides
- Special protective equipment for fire-fighters** : Immediately contact emergency personnel. Flammable material. In case of insufficient ventilation, wear suitable respiratory equipment.

6. Accidental release measures

- Personal precautions** : Flammable. Keep away from ignition sources such as heat/sparks/open flame. - No smoking. Do not get in eyes. Keep out of reach of children.
- Environmental precautions** : Leaking packages should be placed in open containers outdoors away from any source of ignition
- Methods for cleaning up** : Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Place spilled material in an appropriate container for disposal. After contact with skin, wash immediately with plenty of water.

7. Handling and storage

- Handling** : Keep away from ignition sources such as heat/sparks/open flame. - No smoking. Use only in well-ventilated areas. Avoid contact with ignition and heat sources and oxidizers. Do not spray on an open flame or other ignition source. Keep out of reach of children.
- Storage** : Avoid increased storage temperature. Keep away from ignition sources such as heat/sparks/open flame. - No smoking. Avoid contact with ignition and heat sources and oxidizers. Store away from oxidizing agents. Store in cool/well-ventilated place.
- Recommendations** : PRESSURIZED CONTAINER Keep cool and protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits
Alcohol Denat.	ACGIH TLV (United States, 6/2013). STEL: 1000 ppm 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 1000 ppm 8 hours. TWA: 1900 mg/m ³ 8 hours. NIOSH REL (United States, 4/2013). TWA: 1000 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. OSHA PEL (United States, 2/2013). TWA: 1000 ppm 8 hours. TWA: 1900 mg/m ³ 8 hours.
1,1-difluoroethane	AIHA WEEL (United States, 10/2011). TWA: 1000 ppm 8 hours.
Butane	OSHA PEL 1989 (United States, 3/1989). TWA: 800 ppm 8 hours. TWA: 1900 mg/m ³ 8 hours. NIOSH REL (United States, 4/2013). TWA: 800 ppm 10 hours. TWA: 1900 mg/m ³ 10 hours. ACGIH TLV (United States, 6/2013). STEL: 1000 ppm 15 minutes.

Canada

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			Notations
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	
1,1-difluoroethane Alcohol Denat.	US AIHA 10/2011	1000	-	-	-	-	-	-	-	-	
	US ACGIH 6/2013	-	-	-	1000	-	-	-	-	-	
	AB 4/2009	1000	1880	-	-	-	-	-	-	-	
	BC 7/2013	-	-	-	1000	-	-	-	-	-	
	ON 1/2013	-	-	-	1000	-	-	-	-	-	
Butane	QC 12/2012	1000	1880	-	-	-	-	-	-	-	
	US ACGIH 6/2013	-	-	-	1000	-	-	-	-	-	
	AB 4/2009	1000	-	-	-	-	-	-	-	-	
	BC 7/2013	600	-	-	750	-	-	-	-	-	

8. Exposure controls/personal protection

	ON 1/2013 QC 12/2012	800 800	- 1900	-	-	-	-	-	-	-	-
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Mexico

Occupational exposure limits

Ingredient	Exposure limits
Alcohol Denat.	NOM-010-STPS (Mexico, 9/2000). LMPE-PPT: 1000 ppm 8 hours. LMPE-PPT: 1900 mg/m ³ 8 hours.
Butane	NOM-010-STPS (Mexico, 9/2000). LMPE-PPT: 800 ppm 8 hours. LMPE-PPT: 1900 mg/m ³ 8 hours.

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Engineering measures : In case of insufficient ventilation, wear suitable respiratory equipment.

Hygiene measures : When using do not eat, drink or smoke.

Personal protection

- Respiratory** : Chemical splash goggles. Protective clothing must be worn.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Other protection** : Not available.

9. Physical and chemical properties

Physical state	: Liquid. [Viscous liquid.]
Flash point	: Closed cup: 13°C (55.4°F)
Color	: Colorless to light yellow.
Odor	: Characteristic. Fragrance-like.
pH	: 6 to 9
Boiling/condensation point	: 78.333°C (173°F)
Relative density	: 0.81 to 0.85
Aerosol product	
Type of aerosol	: Spray
Heat of combustion	: 8.787 kJ/g

10. Stability and reactivity

Chemical stability	: Stable under recommended storage and handling conditions (see Section 7).
Conditions to avoid	: Store away from direct sunlight. Avoid contact with ignition and heat sources and oxidizers. Store away from oxidizing agents.
Incompatible materials	: Separate from oxidizing materials.
Hazardous decomposition products	: Products of combustion
Possibility of hazardous reactions	: Not available.
Hazardous polymerization	: Not available.

11. Toxicological information

United States

Acute toxicity

Product/ingredient name	Result	Dose	Exposure
Alcohol Denat.	LC50 Inhalation Vapor LD50 Oral	124700 mg/m ³ 7 g/kg	4 hours -
Butane	LC50 Inhalation Vapor	658000 mg/m ³	4 hours

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Score	Exposure	Observation
Alcohol Denat.	Eyes - Mild irritant	-	24 hours 500 milligrams	-
	Eyes - Moderate irritant	-	0.066666667 minutes 100 milligrams	-
	Eyes - Moderate irritant	-	100 microliters	-
	Eyes - Severe irritant	-	500 milligrams	-
	Skin - Mild irritant	-	400 milligrams	-
	Skin - Moderate irritant	-	24 hours 20 milligrams	-

Conclusion/Summary : Not available.

11. Toxicological information

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : No carcinogenic effect.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Alcohol Denat.	A3	1	-	-	-	-

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Canada

Acute toxicity

Product/ingredient name	Result	Dose	Exposure
Alcohol Denat.	LC50 Inhalation Vapor LD50 Oral	124700 mg/m ³ 7 g/kg	4 hours -
Butane	LC50 Inhalation Vapor	658000 mg/m ³	4 hours

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Score	Exposure	Observation
Alcohol Denat.	Eyes - Mild irritant	-	24 hours 500 milligrams	-
	Eyes - Moderate irritant	-	0.06666667 minutes 100 milligrams	-
	Eyes - Moderate irritant	-	100 microliters	-
	Eyes - Severe irritant	-	500 milligrams	-
	Skin - Mild irritant	-	400 milligrams	-
	Skin - Moderate irritant	-	24 hours 20 milligrams	-

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Alcohol Denat.	A3	1	-	-	-	-

Mutagenicity

11. Toxicological information

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Mexico

Acute toxicity

Product/ingredient name	Result	Dose	Exposure
Alcohol Denat.	LC50 Inhalation Vapor	124700 mg/m ³	4 hours
	LD50 Oral	7 g/kg	-
Butane	LC50 Inhalation Vapor	658000 mg/m ³	4 hours

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Score	Exposure	Observation
Alcohol Denat.	Eyes - Mild irritant	-	24 hours 500 milligrams	-
	Eyes - Moderate irritant	-	0.066666667 minutes 100 milligrams	-
	Eyes - Moderate irritant	-	100 microliters	-
	Eyes - Severe irritant	-	500 milligrams	-
	Skin - Mild irritant	-	400 milligrams	-
	Skin - Moderate irritant	-	24 hours 20 milligrams	-

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Alcohol Denat.	A3	1	-	-	-	-

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

12. Ecological information

THE FOLLOWING DATA IN THIS SECTION IS SOURCED FROM PUBLICLY AVAILABLE DATABASES AND NOT THE REPRESENTATION OF ANY DATA COLLECTED BY ZOTOS INTERNATIONAL OR ITS AFFILIATES.

Ecotoxicity : No known significant effects or critical hazards.

United States

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Alcohol Denat.	Acute EC50 17.921 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 2000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - Artemia franciscana - Larvae	48 hours
	Acute LC50 42000 µg/l Fresh water	Fish - Oncorhynchus mykiss	4 days
	Chronic NOEC 4.995 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.375 ul/L Fresh water	Fish - Gambusia holbrooki - Larvae	12 weeks

Conclusion/Summary : Not available.

Persistence/degradability

Conclusion/Summary : Not available.

Canada

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Alcohol Denat.	Acute EC50 17.921 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 2000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - Artemia franciscana - Larvae	48 hours
	Acute LC50 42000 µg/l Fresh water	Fish - Oncorhynchus mykiss	4 days
	Chronic NOEC 4.995 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.375 ul/L Fresh water	Fish - Gambusia holbrooki - Larvae	12 weeks

Conclusion/Summary : Not available.

Persistence/degradability

Conclusion/Summary : Not available.

Mexico

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Alcohol Denat.	Acute EC50 17.921 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 2000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - Artemia franciscana - Larvae	48 hours
	Acute LC50 42000 µg/l Fresh water	Fish - Oncorhynchus mykiss	4 days
	Chronic NOEC 4.995 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.375 ul/L Fresh water	Fish - Gambusia holbrooki - Larvae	12 weeks

Conclusion/Summary : Not available.

Persistence/degradability

Conclusion/Summary : Not available.









13. Disposal considerations

- Waste disposal** : Dispose of according to all federal, state and local applicable regulations.
- Contaminated packaging** : Waste must be disposed of according to applicable regulations. This material and its container must be disposed of as hazardous waste. Recycle, if possible. Dispose of empty containers and waste safely.





Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN1950	Aerosols	2.1	-	 	<p>Limited quantity Yes.</p> <p>Packaging instruction Passenger aircraft Quantity limitation: 75 kg</p> <p>Cargo aircraft Quantity limitation: 150 kg</p> <p>Special provisions 153, N82</p>
TDG Classification	UN1950	AEROSOLS	2.1	-	 	<p>Explosive Limit and Limited Quantity Index 1</p> <p>Passenger Carrying Road or Rail Index 75</p>
Mexico Classification	UN1950	AEROSOLS	2.1	-	 	<p>Special provisions 63, 190, 277</p>
ADR/RID Class	UN1950	AEROSOLS	2	-	 	<p>Limited quantity LQ2</p> <p>Special provisions 190 327 625</p> <p>Tunnel code (D)</p>

14. Transport information

IMDG Class	UN1950	AEROSOLS	2.1	-	 	Emergency schedules (EmS) F-D, S-U Special provisions 63, 190, 277, 327, 959
IATA-DGR Class	UN1950	Aerosols, flammable	2.1	-	 	Passenger and Cargo Aircraft Quantity limitation: 75 kg Packaging instructions: 203 Cargo Aircraft Only Quantity limitation: 150 kg Packaging instructions: 203 Limited Quantities - Passenger Aircraft Quantity limitation: 30 kg Packaging instructions: Y203 Special provisions A145

PG* : Packing group

15. Regulatory information

United States

HCS Classification : Flammable aerosol
Irritating material

U.S. Federal regulations : TSCA : Exempt

SARA 302/304: No products were found.

SARA 311/312 Hazards identification: Fire hazard, Immediate (acute) health hazard

Clean Water Act (CWA) 311: ammonium benzoate

Clean Air Act (CAA) 112 regulated flammable substances: 1,1-difluoroethane;
Butane

Clean Air Act Section 112 : Not listed

(b) Hazardous Air
Pollutants (HAPs)

Clean Air Act Section 602 : Not listed
Class I Substances

Clean Air Act Section 602 : Not listed
Class II Substances

DEA List I Chemicals : Not listed
(Precursor Chemicals)

DEA List II Chemicals : Not listed
(Essential Chemicals)

State regulations

15. Regulatory information

- Massachusetts** : The following components are listed: DIFLUOROETHANE; ETHYL ALCOHOL; BUTANE
New York : None of the components are listed.
New Jersey : The following components are listed: 1,1-DIFLUOROETHANE; ETHANE, 1, 1-DIFLUORO-; ETHYL ALCOHOL; ALCOHOL; BUTANE
Pennsylvania : The following components are listed: DENATURED ALCOHOL; BUTANE

California Prop. 65

CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986. This product is not known to the State of California to cause cancer.

- United States inventory (TSCA 8b)** : Not determined.

Canada

- WHMIS (Canada)** : Class B-2: Flammable liquid
 Class B-5: Flammable aerosol.
 Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

- Canadian NPRI** : The following components are listed: Volatile organic compounds; Ethanol; Butane (all isomers)
CEPA Toxic substances : The following components are listed: Volatile organic compounds
Canada inventory : Not determined.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Mexico

- Classification** :



International regulations

- Chemical Weapons Convention List Schedule I Chemicals** : Not listed
Chemical Weapons Convention List Schedule II Chemicals : Not listed
Chemical Weapons Convention List Schedule III Chemicals : Not listed

16. Other information

- Hazardous Material Information System (U.S.A.)** :

Health	2
Flammability	4
Physical hazards	0

16. Other information

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.) :



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

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▣ Indicates information that has changed from previously issued version.

Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.