

SAFETY DATA SHEET

Prepared to US-OSHA Standards

Kevin Murphy SESSION.SPRAY FLEX (US)

SDS Revision: 3.0

SDS Revision Date: 03Apr19



1. PRODUCT AND COMPANY IDENTIFICATION

1.1	Product Name:	Kevin Murphy SESSION.SPRAY FLEX (US)
1.2	Product Code:	17-2009
1.3	Product Uses & Restrictions:	Personal Care - Aerosol Hair Spray
1.4	Supplier Name:	Kevin Murphy Business Services Pty Ltd
1.5	Supplier Address:	47 Discovery, Suite 230, Irvine, CA 92618, USA
1.6	Business Phone:	949-407-5100
1.7	Business Email:	amizuno@kevinmurphy.com.au
1.8	Emergency Phone:	CHEMTREC: 1-800-424-9300

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

2. HAZARDS IDENTIFICATION

The mixture has been assessed for its physical, health and environmental hazards, and the following classification applies.

2.1	Classification of the Substance or Mixture:	Physical Hazards: Flammable Aerosol - Category 1 Health Hazards: Eye Irritation - Category 2A Environmental Hazards: Not Classified	
2.2	Labeling Elements:	Hazard Signal Word: Danger Hazard Statements: H222: Extremely Flammable Aerosol. H229: Pressurized container: May burst if heated. H319: Causes Serious Eye Irritation Precautionary Statements: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Wash hands thoroughly after handling. Avoid direct eye contact. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If medical advice is needed, have product container or label at hand. Keep out of reach of children. Read label before use. Dispose of waste and residue in accordance with local authority requirements.	Hazard Pictograms:  
2.3	Other Hazards:	None known.	

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixture:

CHEMICAL NAME	CAS No.	Hazard Classification	% by Weight
Ethanol	64-17-5	Flammable Liquid, Category 2 Eye Irritation, Category 2A	50 - 60
1,1-Difluoroethane	75-37-6	Flammable Gas, Category 1	35 - 45

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as physical, health or the environmental hazards, or have been assigned an occupational exposure limit within US OSHA Z-Tables, and hence require reporting in this section.

4. FIRST AID MEASURES

4.1	Description of First Aid Measures:	Ingestion: Not a likely route of exposure due to the form of the product. Eyes: In case of eye contact, flush with copious amounts of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention in the event of an adverse reaction or if symptoms persist. Skin: If signs of irritation to the skin develop, wash the affected area with plenty of water and soap. Seek medical attention in the event of an adverse reaction or if symptoms persist. Inhalation: If respiratory distress or irritation occurs, remove victim to fresh air. Seek medical attention in the event of an adverse reaction or if symptoms persist.
4.2	Most Important Symptoms and Effects, Both Acute and Delayed:	Spraying directly in the eyes may cause serious eye irritation. Symptoms may include stinging, tearing, and redness. Intentional misuse by deliberately concentrating and inhaling the contents may cause nausea, vomiting, and signs of central nervous system depression (headache, dizziness, and drowsiness), and rapid suffocation by displacing oxygen.

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4.3	Indication of Immediate Medical Attention and Special Treatment Needed:	Provide general supportive measures and treat symptomatically. No known specific antidotes.
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5. FIRE FIGHTING MEASURES

5.1	Extinguishing Media:	Suitable Extinguishing Media: Water mist, dry chemical, alcohol resistant foam, or carbon dioxide. Unsuitable Extinguishing Media: None known.
5.2	Specific Hazards:	Danger! Extremely Flammable Aerosol: Vapours may burn or form explosive mixture with air. Pressurized container: May burst if heated. May produce oxides of carbon and/or nitrogen on combustion.
5.3	Special Protective Equipment and Precautions for Firefighters:	Wear self-contained breathing apparatus and full personal protective gear. Use standard firefighting procedures.

6. ACCIDENTAL RELEASE MEASURES

6.1	Personal Precautions, Protective Equipment and Emergency Procedures:	Observe all personal protection equipment recommendations described in Section 8. Remove all sources of ignition and ensure adequate ventilation. Ventilate closed spaces before entering them. Keep unnecessary personnel away.
6.2	Environmental Precautions:	Dike or contain spill to prevent from entering drains. Avoid direct release to drains, surface and ground water.
6.3	Methods and Material for Containment and Cleaning Up:	Clean up spill with non-combustible absorbent material. Clean area to prevent a slip hazard. Dispose of all washings, sweepings, and absorbents in accordance with federal, state and local regulations. Use non-sparking tools and equipment. Take action to prevent static discharges.

7. HANDLING AND STORAGE

7.1	Precautions for Safe Handling:	Pressurized container. Do not pierce or burn, even after use. Utilize safe handling and transportation techniques to avoid puncture of the container. Do not use if spray button is missing or defective. Do not spray on open flame or other ignition source. Ensure adequate ventilation in the workplace. Do not re-use containers. Avoid direct eye contact. Wear appropriate personal protective equipment (see Section 8). Do not smoke while using or until sprayed surface is thoroughly dry. Do not eat or drink while handling. Wash hands thoroughly after handling. Observe good hygiene practices.
7.2	Conditions for Safe Storage:	Pressurized container: May burst if heated. Store in a cool, dry, and well-ventilated area away from direct sunlight. Do not expose to temperatures exceeding 50°C/122°F. Do not store near heat, hot surfaces, sparks, open flames and other ignition sources. Store away from incompatible materials (see Section 10).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1	Control Parameters:	CHEMICAL NAME	CAS Number	Occupational Exposure Limits		
				OSHA PEL (TWA)	NIOSH REL (TWA)	ACGIH TLV
		Ethanol	64-17-5	1000 ppm 1900 mg/m ³	1000 ppm 1900 mg/m ³	STEL: 1000 ppm
		IDLH: Ethanol - 3300 ppm (10% of LEL)				
8.2	Engineering Controls:	Provide adequate ventilation in the workplace to maintain airborne levels below recommended exposure limits.				
8.3	Respiratory Protection:	NIOSH approved respirator in accordance with 29 CFR 1910.134 if airborne exposure limits are exceeded.				
8.4	Eye Protection:	Avoid eye contact. Wear protective eyewear (e.g., safety glasses with side-shield) if eye contact hazards exist in the workplace.				
8.5	Skin Protection:	No special skin protection is required during consumer product use. If anticipated that prolonged or repeated skin contact will occur in the workplace, wear impermeable gloves and suitable protective clothing.				

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9. PHYSICAL AND CHEMICAL PROPERTIES		
9.1	Appearance:	Clear liquid, aerosol spray
9.2	Odor:	Fragrance
9.3	Odor Threshold:	No data available on this product
9.4	pH:	8.5 - 9.0
9.5	Melting Point:	No data available on this product
9.6	Freezing Point:	No data available on this product
9.7	Initial Boiling Point/Boiling Range:	1,1-Difluoroethane: -24°C (-11°F); Ethanol: 78.2°C (173°F)
9.8	Flashpoint:	1,1-Difluoroethane: -50°C (-58°F) open cup; Ethanol: 13°C (55°F): closed cup
9.9	Evaporation Rate:	No data available on this product
9.10	Flammability (solid, gas):	No data available on this product
9.11	Upper/Lower Flammability or Explosive Limits:	UEL: 18.0% (1,1-Difluoroethane), 19.0% (ethanol) LEL: 3.7% (1,1-Difluoroethane), 3.3% (ethanol)
9.12	Vapor Pressure:	50 - 60 psig @ 21°C (70°F)
9.13	Vapor Density:	No data available on this product
9.14	Relative Density (water=1.0):	0.818 - 0.828
9.15	Solubility:	No data available on this product
9.16	Partition Coefficient (n-octanol/water):	Ethanol: -0.31 Log K _{ow} 1,1-Difluoroethane: 0.75 Log K _{ow}
9.17	Autoignition Temperature:	No data available on this product
9.18	Decomposition Temperature:	No data available on this product
9.19	Viscosity:	No data available on this product
9.20	Other Information:	No relevant additional information available on this product
10. STABILITY AND REACTIVITY		
10.1	Reactivity:	The product is not reactive under normal conditions of use, storage and transport.
10.2	Chemical Stability:	This product is stable under normal handling and storage conditions.
10.3	Possibility of Hazardous Reactions:	No hazardous reactions known under conditions of normal use. Hazardous polymerization is not expected.
10.4	Conditions to Avoid:	Direct sunlight, extremely high or low temperatures, sparks, open flame, and other ignition sources.
10.5	Incompatible Materials:	Strong acids, bases, and oxidizing agents.
10.6	Hazardous Decomposition Products:	No hazardous decomposition products are known. May produce oxides of carbon and/or nitrogen on combustion.
11. TOXICOLOGICAL INFORMATION		
Information on Toxicological Effects: No data available on the mixture. Health effects of the mixture are derived from ingredient literature review, concentrations present, and in accordance with US OSHA Regulation 29 CFR 1910.1200. If available, relevant toxicological properties of the components that contribute to classification of the mixture in Section 3 are provided. Evaluations for the mixture may be based on additional information not shown.		
11.1	Potential Acute Health Effects and Symptoms:	
	Eye Contact:	Direct contact with eyes may cause serious eye irritation. Symptoms may include stinging, tearing, and redness.
	Skin Contact:	No adverse effects expected from normal use. Prolonged or repeated skin exposure may cause defatting, drying and cracking of the skin.
	Ingestion:	Not a likely route of exposure due to the form of the product. May cause gastrointestinal discomfort/irritation if swallowed.

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	Inhalation:	No adverse effects expected from normal use. Intentional misuse by deliberately concentrating and inhaling the contents may cause nausea, vomiting, and signs of central nervous system depression (headache, dizziness, and drowsiness), and rapid suffocation by displacing oxygen.
11.2	Potential Chronic Health Effects:	None known
11.3	Acute Toxicity:	Product Summary/Conclusion: Based on available data, classification criteria are not met.
	Components:	1,1-Difluoroethane: CAS 75-37-6 Oral Toxicity: Study technically not feasible Dermal Toxicity: Study technically not feasible Inhalation LC50: 383,000 ppm, 4 hour (Rat)
		Ethanol: CAS 64-17-5 Oral LD50: 7060 mg/kg (Rat) Dermal LD50: 20,000 mg/kg (Rabbit) Inhalation LC50: > 60,000 ppm (114 mg/L), 1 hour (Mouse)
11.4	Skin Corrosion/Irritation:	Product Summary/Conclusion: Based on available data, classification criteria are not met.
		1,1-Difluoroethane: CAS 75-37-6 Study technically not feasible
		Ethanol: CAS 64-17-5 Acute Dermal Irritation/Corrosion, OECD 404, Rabbit: Not irritating to skin Modified Draize 1944 for Human Repeat Occluded (95% active): Slightly irritating under extreme repeat dose situations.
11.5	Serious Eye Damage/Irritation:	Product Summary/Conclusion: Causes serious eye irritation.
		1,1-Difluoroethane: CAS 75-37-6 Study technically not feasible
		Ethanol: CAS 64-17-5 Acute Eye Irritation/Corrosion, OECD 405, Rabbit (100% active): eye irritant (Category 2A)
11.6	Respiratory or Skin Sensitization:	Product Summary/Conclusion: Based on available data, classification criteria are not met.
		1,1-Difluoroethane: CAS 75-37-6 Respiratory Sensitization: No evidence of respiratory sensitization during inhalation exposures. Skin Sensitization: Study technically not feasible
		Ethanol: CAS 64-17-5 Respiratory Sensitization: No reports of human respiratory sensitization. Skin Sensitization: No skin sensitization evident in animal studies at 75% concentration.
11.7	Germ Cell Mutagenicity:	Product Summary/Conclusion: Based on available data, classification criteria are not met. No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
		1,1-Difluoroethane: CAS 75-37-6 <i>In-vitro</i> : Negative for bacterial reverse mutation test (OECD 471) in Salmonella typhimurium and Escherichia coli.
		Ethanol: CAS 64-17-5 <i>In-vitro</i> : Negative for bacterial reverse mutation test (OECD 471) in Salmonella typhimurium up to maximum plate concentration of 10 mg/plate, with and without metabolic activation.
11.8	Carcinogenicity:	Product Summary/Conclusion: Based on available data, classification criteria are not met. No components at levels greater than or equal to 0.1% are listed as carcinogens by IARC, US OSHA or NTP.
		1,1-Difluoroethane: CAS 75-37-6 Combined Chronic Toxicity/Carcinogenicity, OECD 453, Rat, Inhalation: Not carcinogenic
11.9	Reproductive Toxicity:	Product Summary/Conclusion: Based on available data, classification criteria are not met. No data available to indicate product or any components present at greater than 0.1% cause reproductive or developmental effects.
		1,1-Difluoroethane: CAS 75-37-6 Chronic Toxicity, DuPont, Rat, Inhalation: NOAEL 25,000 ppm (highest concentration tested) - No adverse effects on reproductive organs or tissues Developmental Toxicity, DuPont, Rat: NOAEL (maternal and developmental toxicity) 50,000 ppm (highest concentration tested)
		Ethanol: CAS 64-17-5 Two-Generation Reproduction Toxicity, OECD 416, Mouse, Oral: NOAEL 15% (20.7g/kg/day) (highest concentration tested) Prenatal Developmental Toxicity, OECD 414, Rat, Inhalation: NOAEL (maternal toxicity) 16,000 ppm, NOAEL (teratogenicity) > 20,000 ppm (highest concentration tested)
11.10	STOT-Single Exposure:	Based on available data, classification criteria are not met.

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11.11	STOT-Repeated Exposure:	Product Summary/Conclusion: Based on available data, classification criteria are not met.
		1,1-Difluoroethane: CAS 75-37-6 Combined Chronic Toxicity/Carcinogenicity, OECD 453, Rat, Inhalation: NOAEL 2.5% Repeat Dose Inhalation Toxicity, DuPont, Rat: NOAEL 25,000 ppm (highest concentration tested)
		Ethanol: CAS 64-17-5 90-Day Oral Toxicity, Mouse: NOAEL > 9400 mg/kg (total dose), LOAEL 9700 mg/kg Repeated Dose Inhalation Toxicity, Rat, 4 weeks (6 hours/day, 5 days/week): NOAEC > 6130 ppm
11.12	Aspiration Hazard:	Not classified due to form of the product.





12. ECOLOGICAL INFORMATION

12.1	Ecotoxicity:	Product Summary/Conclusion: Based on available data, classification criteria are not met.
		1,1-Difluoroethane: CAS 75-37-6 Aquatic Plants EC50: 168.276 mg/L, 96 hours, QSAR Calculation (Green Algae) Crustacea EC50: 634.41 mg/L, 48 hours, Read-across (Daphnia magna) Fish LC50: 291.31 mg/L, 96 hours, Read-across (Rainbow Trout)
		Ethanol: CAS 64-17-5 Aquatic Plants EC50: 275 mg/L, 72 hours (Chlorella vulgaris: fresh water algae) Crustacea LC50: 12,340 mg/L, 48 hours (Daphnia magna); EC50: 23,874 mg/L, 24 hours (Artemia salina) Fish LC50: > 10,000 mg/L, 96 hours (rainbow trout); > 13,400 mg/L, 96 hours (fathead minnow)
12.2	Persistence and Degradability:	Ethanol: CAS 64-17-5 Readily biodegradable
12.3	Bioaccumulative Potential:	Ethanol: -0.31 (Log K _{ow}) Difluoroethane: 0.75 (Log K _{ow})
12.4	Mobility in Soil:	No data available
12.5	Other Adverse Effects:	No other known adverse environmental effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

13.1	Waste Disposal Methods:	Dispose of in accordance with appropriate federal, state, and local regulations. Avoid direct release of large quantities to sewage drains. Empty containers should be taken to an approved waste handling site for recycling or disposal.
13.2	Special Precautions:	Empty container may retain product residue. Observe all precautions for ignitable waste and pressurized container.
13.3	US EPA (RCRA) Hazardous Waste Classification:	U.S. EPA Waste Number: RCRA D001/Unlisted Ignitable Hazardous Waste.

14. TRANSPORT INFORMATION

Shipment in Consumer Packaging - Limited Quantity		US DOT (Ground)	IMDG (Sea)	IATA (Air)
14.1	UN Number:	Not applicable	UN1950	ID8000
14.2	UN Proper Shipping Name:	Not applicable	Aerosols	Consumer Commodity
14.3	Transport Hazard Classes:	Not applicable	2.1	9
				 
14.4	Packing Group:	None	None	None
14.5	Environmental Hazards:	None	None	None
14.6	Transport in Bulk According to Annex II of Marpol and the IBC Code:	Not applicable		
14.7	Special Precautions for User:	Transport within user's premises: Transport in closed containers that are upright and secure. Read SDS and emergency procedures before handling.		

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15. REGULATORY INFORMATION		
15.1	SARA 302 TPQ:	No chemical components in this product are listed.
15.2	SARA 304 RQ:	No chemical components in this product are listed.
15.3	SARA 311/312:	Not applicable - product is exempt.
15.4	SARA 313:	No chemical components in this product are listed.
15.5	CERCLA RQ:	RCRA D001/Unlisted Ignitable Hazardous Waste: Difluoroethane, Ethanol = 100 lbs
15.6	Clean Air Act (CAA) Section 112(r) TQ:	Difluoroethane - 10,000 lbs
15.7	Clean Water Act (CWA):	No chemical components in this product are listed.
15.8	State Regulations:	Follow state regulations for work with chemical agents.
16. OTHER INFORMATION		
16.1	Legend:	ACGIH: American Conference of Governmental Industrial Hygienists CAS: Chemical Abstracts Service CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act CFR: Code of Federal Regulations DOT: (US) Department of Transportation EC50: Effective Concentration, 50% EPA: Environmental Protection Agency IATA: International Air Transport Association IARC: International Agency for the Research of Cancer IBC: Intermediate Bulk Container IDHL: Immediately Dangerous to Life or Health Concentrations IMDG: International Maritime Dangerous Goods LC50: Lethal Concentration, 50% LD50: Lethal Dose, 50% LOAEL: Lowest Observed Adverse Effect Level Log K _{ow} : Logarithm of the n-octanol/water partition coefficient NIOSH: National Institute for Occupational Safety and Health NOAEC: No Observed Adverse Effect Concentration NOAEL: No Observed Adverse Effect Level NTP: National Toxicology Program OECD: Organisation for Economic Co-operation and Development OSHA: (US) Occupational Safety & Health Administration PEL: Permissible Exposure Limit QSAR: Quantitative Structure-Active Relationship RCRA: Resource Conservation and Recovery Act REL: Recommended Exposure Limit RQ: Reportable Quantity SARA: Superfund Amendments and Reauthorization Act STEL: Short Term Exposure Limit STOT: Specific Target Organ Toxicity TLV: Threshold Limit Value TPQ: Threshold Planning Quantity TQ: Threshold Quantity TWA: Time Weighted Average US: United States
16.2	Disclaimer:	This Safety Data Sheet is intended to provide a brief summary of our knowledge and guidance regarding the use of this product. The information set forth herein has been compiled from sources considered to be reliable and is believed to be accurate as of the date of publication. This information is offered in good faith by Kevin Murphy Business Services Pty Ltd and the accuracy, suitability or completeness is not guaranteed, and no warranties of any type, either expressed or implied, are provided. If this product is combined with other materials, all component properties must be considered. The user assumes all liability for any damage or from any hazards inherent in the nature of the product.
16.3	Last Revision Date:	23Apr18
16.4	Reason for Revision:	Updated sections 8, 9, 11, 12 and 15.