

SAFETY DATA SHEET



Joico Flip Turn Volumizing Finishing Spray, 55% VOC

1. Identification of the material and supplier

Names

Product name : Joico Flip Turn Volumizing Finishing Spray, 55% VOC
Distributor : Sabre Corporation PTY LTD
Building 8, Suite 6, level 2 / 49 Frenchs Forest Road
Forest Central Business Park
Frenchs Forest, NSW, 2086
Manufacturer : Zotos International, INC
100 Tokeneke Road,
Darien, CT 06820
www.zotos.com
Emergency telephone number : 131126

2. Hazards identification

Classification : F; R11
Risk phrases : R11- Highly flammable.
Safety phrases : S2- Keep out of the reach of children.
S46- If swallowed, seek medical advice immediately and show this container or label.
Hazard statements : FLAMMABLE AEROSOL. CAUSES EYE IRRITATION.

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

3. Composition/information on ingredients

Mixture : Yes.

| Ingredient name | CAS number | Concentration |
|------------------------|------------|---------------|
| Ethyl alcohol | 64-17-5 | 44.42 |
| 1,1-difluoroethane | 75-37-6 | 27.00 |
| Butane | 106-97-8 | 9.00 |
| (R)-p-Mentha-1,8-diene | 5989-27-5 | 0.00 |

Other ingredients, determined not to be hazardous according to Safe Work Australia criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

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

First aid measures

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.
Skin contact : Remove contaminated clothing and shoes. Wash with plenty of soap and water.
Eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.
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.
Advice to doctor : None.

5. Fire-fighting measures

- Extinguishing media** : Use dry chemical, CO₂, alcohol-resistant foam or water spray (fog).
- Special exposure hazards** : Flammable liquid. Prevent the creation of flammable or explosive concentrations of vapors in air and avoid vapor concentrations higher than the occupational exposure limits.
- 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.
- Hazchem code** : 2YE

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.

8. Exposure controls/personal protection

Occupational exposure limits

| Ingredient name | Exposure limits |
|------------------------|---|
| Ethyl alcohol | Safe Work Australia (Australia, 1/2014). TWA: 1880 mg/m ³ 8 hours. TWA: 1000 ppm 8 hours. |
| Butane | Safe Work Australia (Australia, 1/2014). TWA: 1900 mg/m ³ 8 hours. TWA: 800 ppm 8 hours. |
| (R)-p-Mentha-1,8-diene | TRGS900 AGW (Germany, 3/2015). Absorbed through skin. Skin sensitizer. PEAK: 20 ppm 15 minutes. PEAK: 112 mg/m ³ 15 minutes. TWA: 5 ppm 8 hours. TWA: 28 mg/m ³ 8 hours. |

- 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.

Exposure controls

- Engineering measures** : In case of insufficient ventilation, wear suitable respiratory equipment.
- Hygiene measures** : When using do not eat, drink or smoke.
- 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: safety glasses with side-shields.

8. Exposure controls/personal protection

- 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.
- Respiratory** : Chemical splash goggles. Protective clothing must be worn.
- 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.

9. Physical and chemical properties

- Physical state** : Liquid. [Viscous liquid.]
- Color** : Colorless to light yellow.
- Odor** : Characteristic. Fragrance-like.
- Boiling point** : 78.333°C (173°F)
- Relative density** : 0.81 to 0.85
- Flash point** : Closed cup: 13°C (55.4°F)
- pH** : 6 to 9
- Aerosol product**
- Type of aerosol** : Spray
- Heat of combustion** : 9.077 kJ/g
- Flame duration** : Not available.

*** draft only ***

10. Stability and reactivity

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

11. Toxicological information

Potential acute health effects

- Inhalation** : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Eye contact** : No known significant effects or critical hazards.
- Acute toxicity**

11. Toxicological information

| Product/ingredient name | Result | Dose | Exposure |
|----------------------------------|---|---|-------------------|
| Ethyl alcohol | LC50 Inhalation Vapor LD50 Oral | 124700 mg/m ³ 7 g/kg | 4 hours - |
| Butane (R)-p-Mentha-1,8-diene | LC50 Inhalation Vapor LD50 Dermal LD50 Oral | 658000 mg/m ³ >5000 mg/kg 4400 mg/kg | 4 hours - - |

Conclusion/Summary : Not available.

Potential chronic health effects

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

| Product/ingredient name | Result | Score | Exposure | Observation |
|-------------------------|--------------------------|-------|------------------------------------|-------------|
| Ethyl alcohol | 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 | - |
| (R)-p-Mentha-1,8-diene | Skin - Mild irritant | - | 24 hours 10 Percent | - |

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

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

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Ingestion : No specific data.

Skin : No specific data.

Eyes : Adverse symptoms may include the following:
irritation
redness

Target organs : Contains material which may cause damage to the following organs: blood, the reproductive system, liver, heart, upper respiratory tract, skin, eyes, central nervous system (CNS).

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.

Aquatic ecotoxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|--------------------------------------|--|----------|
| Ethyl alcohol | 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 |
| (R)-p-Mentha-1,8-diene | Acute EC50 421 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute EC50 688 µg/l Fresh water | Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |

Conclusion/Summary : Not available.

Other ecological information

Persistence/degradability

Conclusion/Summary : Not available.

Bioaccumulative potential





| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|------|-----------|
| Ethyl alcohol | -0.35 | - | low |
| 1,1-difluoroethane | 1.13 | - | low |
| Butane | 2.89 | - | low |
| (R)-p-Mentha-1,8-diene | 4.38 | 0.22 | high |

Other adverse effects : No known significant effects or critical hazards.



13. Disposal considerations

Methods of disposal : Dispose of according to all federal, state and local applicable regulations.

14. Transport information

| Regulation | UN number | Proper shipping name | Classes | PG* | Label | Additional information |
|------------|-----------|----------------------|---------|-----|---|---|
| ADG | UN1950 | AEROSOLS | 2.1 | - |  | Hazchem code 2YE Special provisions 63, 190, 277, 327 |
| ADR | UN1950 | AEROSOLS | 2 | - |    | The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. Limited quantity LQ2 Special provisions 190 327 625 Tunnel code (D) |
| | | | | | | |

14. Transport information

| | | | | | | |
|--------------------|---------------|---|------------|----------|---|---|
| <p>IMDG</p> | <p>UN1950</p> | <p>AEROSOLS. Marine pollutant (ethanol)</p> | <p>2.1</p> | <p>-</p> |  | <p>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p> <p>Emergency schedules (EmS) F-D, S-U</p> <p>Special provisions 63, 190, 277, 327, 959</p> |
| <p>IATA</p> | <p>UN1950</p> | <p>Aerosols, flammable</p> | <p>2.1</p> | <p>-</p> |  | <p>The environmentally hazardous substance mark may appear if required by other transportation regulations.</p> <p>Passenger and Cargo Aircraft Quantity limitation: 75 kg Packaging instructions: 203</p> <p>Cargo Aircraft Only Quantity limitation: 150 kg Packaging instructions: 203</p> <p>Limited Quantities - Passenger Aircraft Quantity limitation: 30 kg Packaging instructions: Y203</p> <p>Special provisions A145</p> |

*** draft only ***

PG* : Packing group

15. Regulatory information

[Standard Uniform Schedule of Medicine and Poisons](#)

Not regulated.

[Control of Scheduled Carcinogenic Substances](#)

Australia inventory (AICS) : All ingredients that are not contained in the AICS database are below registration thresholds.

16. Other information

Date of issue : ***

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

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.