

Marsh
Aerosol Cleaning Spray
HR Sprayaway

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name	: HR Sprayaway
Synonyms	: Product Code : 29906
Material uses	: Industrial applications: Cleaning solution used to remove ink residue from drop-on-demand print heads.
Emergency phone	: Medical: CALL RMPDC, USA (303) 623-5716 Transporters: CALL CHEMTREC, USA (800)-424-9300
Manufacturer	: Videojet Technologies Inc., 1500 Mittel Boulevard, Wood Dale, IL, 60191-1073 U.S.A Phone: 1-800-843-3610 Fax: 1-800-582-1343 Videojet Technologies Europe BV., Strijkviertel 39, 3454 PJ De Meern, The Netherlands. Phone: 31-030-6693000 Fax: 31-030-6693060

2. COMPOSITION / INFORMATION ON INGREDIENTS

Information on hazardous ingredients

	<u>CAS No.</u>	<u>Percent (%)</u>	<u>Chemical name</u>
1)	67-63-0	80 - 90	Isopropyl alcohol
2)	106-97-8	7 - 13	Butane
3)	74-98-6	7 - 13	Propane
4)	75-28-5	3 - 7	Propane, 2-methyl

* Occupational Exposure Limit(s), if available, are listed in section 8

3. HAZARDS IDENTIFICATION

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



Emergency Overview

: **ATTENTION! FLAMMABLE AEROSOL.** Keep away from flame, heat, and static discharge sources. Irritant and central nervous system depressant: Avoid inhalation of mist or vapor and contact with eyes and skin. If inhaled remove to fresh air. If contacts eyes flush with water. If contacts skin flush with water and wash with mild soap. In medical emergency call Poison Control Center (USA 1-303-623-5716) and a physician. Read MSDS before using.

Effects and symptoms

<u>Chemical name</u>	<u>Effects and symptoms</u>
1) Isopropyl alcohol	May cause irritation of respiratory tract, coughing, shortness of breath. Slightly irritating to the skin. Absorbed through skin. Moderately irritating to the eyes. Ingestion : Exposure can cause nausea, headache and vomiting. Inhalation and Ingestion : Can cause CNS depression. Can cause dizziness, lightheadedness, headache, nausea, and blurred vision. May cause loss of consciousness/coma and death . Repeated or prolonged contact with irritants may cause dermatitis.
2) Butane	Exposure to high concentrations can cause dizziness, lightheadness, headache, nausea, and blurred vision. Higher levels may cause unconsciousness. Acts as a simple asphyxiant. Eye contact may cause blurred or double vision .
3) Propane	Inhalation : Acts as a simple asphyxiant.
4) Propane, 2-methyl	Exposure to high concentrations can cause dizziness, lightheadness, headache, nausea, and blurred vision. Higher levels may cause unconsciousness. Acts as a simple asphyxiant.

4. FIRST AID MEASURES

- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
- Ingestion** : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
- Skin contact** : Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.
- Eye contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

5. FIRE-FIGHTING MEASURES

- Extinguishing media** : Flammable liquid, soluble or dispersed in water.
SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
- Special fire-fighting procedures** : Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
- Hazardous thermal decomposition products** : These products are carbon oxides (CO, CO₂).
- Protection of fire-fighters** : Be sure to use an approved/certified respirator or equivalent.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
- Environmental precautions and clean-up methods** : Flammable liquid.
Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed.

7. HANDLING AND STORAGE

- Handling** : Keep locked up. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, reducing agents.
- Storage** : Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).
- Packaging materials** : Use original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering controls** : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
- Hygiene measures** : Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.

Occupational Exposure Limits

<u>Chemical name</u>	<u>Exposure limits</u>
1) Isopropyl alcohol	1) United States ACGIH TWA 8 hours 400 ppm 2) United States ACGIH STEL 15 minutes 500 ppm 3) United States OSHA TWA 8 hours 400 ppm
2) Butane	1) United States ACGIH TWA 8 hours 800 ppm 2) United States MSHA TWA 8 hours 500 ppm
3) Propane	1) United States ACGIH TWA 8 hours 2500 ppm 2) United States OSHA TWA 8 hours 1000 ppm
4) Propane, 2-methyl	No established limits.

Personal Protective Equipment

- Respiratory system** : Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Skin and body	: Lab coat.
Hands	: Gloves.
Eyes	: Splash goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance	: Liquid.
Odor threshold	: The highest known value is 22000 ppm. Weighted average: 1978 ppm.
Boiling point	: The lowest known value is -42 °C. Weighted average: 62 °C.
Melting point	: May start to solidify at -88 °C. Weighted average: -88 °C.
Specific gravity	: 0.76 (Water = 1)
Vapor density	: The highest known value is 2.1. The lowest known value is 1.6. (Air = 1)
Vapor pressure	: The highest known value is 33 mmHg at 20°C. Weighted average: 33 mmHg at 20°C.
Evaporation rate (butyl acetate = 1)	: The highest known value is 1.7. Weighted average: 1.7.
Solubility	: Easily soluble in hot water, methanol. Soluble in cold water, diethyl ether, n-octanol, acetone.
Octanol/water partition coefficient	: The product is equally soluble in oil and water.
Flash point	: -76 °C.
Autoignition temperature	: The lowest known value is 287 °C. Weighted average: 398 °C.
Flammable limits	: The lowest known value is 2.0%. The highest known value is 13.0%.
Volatility (w/w)	: 100 %.
VOC Volatility (w/w) - less exempt volatile.	: 100 %.

10. STABILITY AND REACTIVITY

Stability	: The product is stable.
Conditions and materials to avoid	: Not available.
Hazardous reactions	: Reactive with oxidizing agents, reducing agents. Slightly reactive to reactive with acids, alkalis.
Hazardous decomposition products	: These products are carbon oxides (CO, CO ₂).

11. TOXICOLOGICAL INFORMATION

<u>Chemical name</u>	<u>Toxicological Information</u>
1) Isopropyl alcohol	1) LD50 Oral Rat: 5045 mg/kg 2) LD50 Oral Rabbit: 6410 mg/kg 3) LD50 Oral Mouse: 3600 mg/kg 4) LD50 Dermal Rabbit: 12800 mg/kg
2) Butane	1) LC50 Inhalation gas Rat: 658000 mg/m ³ 4 hours 2) LC50 Inhalation gas Mouse: 680000 mg/m ³ 2 hours
3) Propane	Not available.
4) Propane, 2-methyl	1) LCLo Inhalation gas Mouse: 1041 ppm 2 hours

12. ECOLOGICAL INFORMATION

Persistence/degradability	: Not available.
Ecotoxicity	: Not available.
California, VOC Content	: 760 grams volatile organic / liter less water or exempt volatile.

13. DISPOSAL CONSIDERATIONS

Disposal methods	: Waste must be disposed of in accordance with federal, state and local environmental control regulations.
RCRA waste code	: Not available.

14. TRANSPORT INFORMATION

UN number : UN1950
Proper shipping name : Aerosols
TDG classification : 2.1

15. REGULATORY INFORMATION

CERCLA : The following product(s) is (are) listed by CERCLA: None.
SARA 313 : The following product(s) is (are) listed on SARA 313: None.
California prop. 65 : This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: None.

16. OTHER INFORMATION

Date of issue : May 28, 2002
Prepared by : Garth Studebaker, CSP
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