

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: T æ&@CFĖFĭ /~~~~~\^çã } Kĭ æ&@CFĖFĭ

1 Identification

- **Product identifier**
- **Trade name:** Preval Disposable Sprayer Kit
- **Product code:** 1-277€ (10041€J)
- **Recommended use and restriction on use**
- **Recommended use:** Forensics.
- **Restrictions on use:** Contact manufacturer
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Safariland, LLC
13386 International Parkway
Jacksonville, FL 32218
Customer Care (800) 347-1200
- **Emergency telephone number:**
ChemTel Inc.
+1 (800)255-3924, +1 (813)248-0585



2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Aerosol 1 H222 Extremely flammable aerosol.
Press. Gas H280 Contains gas under pressure; may explode if heated.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**

 GHS02 GHS04
- **Signal word:** Danger
- **Hazard-determining components of labeling:** Not applicable.
- **Hazard statements:**
H222 Extremely flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
- **Precautionary statements:**
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P251 Pressurized container: Do not pierce or burn, even after use.
P211 Do not spray on an open flame or other ignition source.
P410+P403 Protect from sunlight. Store in a well-ventilated place.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
- **Other hazards** There are no other hazards not otherwise classified that have been identified.

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

115-10-6	dimethyl ether	 Flam. Gas 1, H220  Press. Gas, H280	30-60%
75-28-5	isobutane	 Flam. Gas 1, H220  Press. Gas, H280	10-30%
74-98-6	propane	 Flam. Gas 1, H220  Press. Gas, H280	10-30%

· **Additional information:**

For the listed ingredient(s), the identity and exact percentage(s) are being withheld as a trade secret.
For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

· **Description of first aid measures**

· **General information:** No special measures required.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Wash with soap and water.

If skin irritation is experienced, consult a doctor.

In cases of frostbite, rinse with plenty of water. Do not remove clothing.

· **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Unlikely route of exposure.

Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

Dizziness

Coughing

Frostbite

Disorientation

· **Danger:** No relevant information available.

· **Indication of any immediate medical attention and special treatment needed:**

If necessary oxygen respiration treatment.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

Alcohol resistant foam

Gaseous extinguishing agents

Carbon dioxide

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Water fog / haze

Water spray

- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
 - Danger of receptacles bursting because of high vapor pressure if heated.
 - Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
 - Wear self-contained respiratory protective device.
 - Wear fully protective suit.
- **Additional information:**
 - Eliminate all ignition sources if safe to do so.
 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
 - Cool endangered receptacles with water fog.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**
 - Wear protective equipment. Keep unprotected persons away.
 - For large spills, wear protective clothing.
 - Ensure adequate ventilation.
 - Keep away from ignition sources.
 - Protect from heat.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**
 - Allow to evaporate.
 - Pick up mechanically.
 - Dispose unusable material as waste according to item 13.
- **Reference to other sections:**
 - See Section 7 for information on safe handling.
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
 - Use only in well ventilated areas.
 - Avoid splashes or spray in enclosed areas.
- **Information about protection against explosions and fires:**
 - Extremely flammable aerosol.
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
 - Pressurized container: protect from sunlight and do not expose to temperatures exceeding 120 °F / 49 °C, i.e. electric lights. Do not pierce or burn, even after use.
 - Do not spray on a naked flame or any incandescent material.

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Emergency cooling must be available in case of nearby fire.
Flammable gas-air mixtures may be formed in empty containers/receptacles.

- **Conditions for safe storage, including any incompatibilities**

- **Storage**

- **Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

- **Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from oxidizing agents.

- **Further information about storage conditions:**

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

- **Specific end use(s):** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

115-10-6 dimethyl ether

WEEL (USA)	Long-term value: 1000 ppm
EL (Canada)	Long-term value: 1000 ppm

75-28-5 isobutane

TLV (USA)	Short-term value: 2370 mg/m ³ , 1000 ppm
EV (Canada)	Long-term value: 800 ppm
LMPE (Mexico)	Long-term value: 1000 ppm

74-98-6 propane

PEL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
REL (USA)	Long-term value: 1800 mg/m ³ , 1000 ppm
TLV (USA)	refer to Appendix F in TLVs and BEIs book
EL (Canada)	Long-term value: 1000 ppm
EV (Canada)	Long-term value: 1000 ppm
LMPE (Mexico)	Long-term value: 1000 ppm

- **Exposure controls**

- **Engineering measures**

Provide adequate ventilation.

Use only outdoors or in a well-ventilated area.

- **Personal protective equipment:**

- **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

- **Engineering controls:** No relevant information available.

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- **Breathing equipment:**
Not required under normal conditions of use.
Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**
Gloves not required under normal conditions of use.
Protection may be required for spills.
- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:**
Not required under normal conditions of use.
Protection may be required for spills.
- **Limitation and supervision of exposure into the environment**
No relevant information available.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

Form: Compressed gas
Color: Colorless

· **Odor:** Slight, ethereal

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Melting point/Melting range:** Not applicable, as aerosol.

· **Boiling point/Boiling range:** -42 - -11 °C

· **Flash point:** -104 °C (-155 °F)
Extremely flammable aerosol.

· **Flammability (solid, gaseous):** Not applicable.

· **Auto-ignition temperature:** 235 °C (455 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not self-igniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits

Lower: 1.7 Vol %

Upper: 18.6 Vol %

· **Oxidizing properties:** Not determined.

· **Vapor pressure at 20 °C (68 °F):** > 2.0 bar

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|--|--|
| <ul style="list-style-type: none"> · Density at 20 °C (68 °F): · Relative density: · Vapor density: · Evaporation rate: | <p>0.6 g/cm³ (5.007 lbs/gal)</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not applicable.</p> |
| <ul style="list-style-type: none"> · Solubility in / Miscibility with Water: | <p>Partly soluble.</p> |
| <ul style="list-style-type: none"> · Partition coefficient (n-octanol/water): | <p>Not determined.</p> |
| <ul style="list-style-type: none"> · Viscosity <li style="padding-left: 20px;">Dynamic: <li style="padding-left: 20px;">Kinematic: · Other information | <p>Not determined.</p> <p>Not determined.</p> <p>No relevant information available.</p> |

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
Danger of receptacles bursting because of high vapor pressure if heated.
- **Possibility of hazardous reactions:**
Develops readily flammable gases / fumes.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
Extremely flammable aerosol.
Reacts violently with oxidizing agents.
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid:**
Keep ignition sources away - Do not smoke.
Store away from oxidizing agents.
- **Incompatible materials:** No relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

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· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

· **Probable route(s) of exposure:**

Inhalation.

Eye contact.

Skin contact.

· **Acute effects (acute toxicity, irritation and corrosivity):** From product as supplied: None.

· **Repeated dose toxicity:** No relevant information available.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

· **Carcinogenicity:** Based on available data, the classification criteria are not met.

· **Reproductive toxicity:** Based on available data, the classification criteria are not met.

· **STOT-single exposure:** Based on available data, the classification criteria are not met.

· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

· **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity** No relevant information available.

· **Persistence and degradability** No relevant information available.

· **Bioaccumulative potential:** No relevant information available.

· **Mobility in soil:** No relevant information available.

· **Additional ecological information**

· **General notes:**

Negative ecological effects are, according to the current state of knowledge, not expected.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects:** No relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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14 Transport information

· UN-Number · DOT, ADR, IMDG, IATA	UN1950
· UN proper shipping name · DOT, IATA · ADR · IMDG	Aerosols, flammable 1950 AEROSOLS AEROSOLS
· Transport hazard class(es) · DOT	
	
· Class · Label	2.1 2.1
· ADR	
	
· Class · Label	2.1 5F 2.1
· IMDG, IATA	
	
· Class · Label	2.1 2.1
· Packing group	This UN-number is not assigned a packing group. Aerosols are not assigned a packing group.
· Environmental hazards	Not applicable.
· Special precautions for user · Danger code (Kemler): · EMS Number:	Not applicable. 21 F-D,S-U
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity

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- **IMDG**
- **Excepted quantities (EQ)** Code: E0
Not permitted as Excepted Quantity

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

- **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

- **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

- **Proposition 65 (California)**

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

- **Canada**

- **Canadian substance listings**

- **Canadian Domestic Substances List (DSL):**

All ingredients are listed.

- **Canadian Ingredient Disclosure list (limit 0.1%):**

None of the ingredients are listed.

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· **Canadian Ingredient Disclosure list (limit 1%):**

None of the ingredients are listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 02/24/2016 / -

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases, Hazard Category 1

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

Press. Gas: Gases under pressure: Compressed gas

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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