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Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Name: Isopropyl Alcohol: Electronics Cleaner

Other Means of Identification: Alcool Isopropylique, Nettoyant pour l'Électronique

Related Part # 106-250ml, 106-500ml, 106-1L, 106-4L, 106-20L, 106-4oz

Recommended Use and Restriction on Use

Use: Cleaner for electronics

Uses Advised Against: Not for use on monitor screens or glass with anti-glare coatings

Details of Manufacturer or Importer

Dustronics Inc.
Brampton, Ontario CANADA
416-880-6772
Email: service@dustronics.com
Web: www.dustronics.com

Emergency Phone Number

For hazardous material incidents ONLY (leaks, spills, fires, exposures or accidents)
USA or CANADA—Call Verisk 3E at [+1-866-519-4752](tel:+18665194752) or [+1-760-476-3962](tel:+17604763962)

For emergencies involving the transport of dangerous goods; 24/7 service
CANADA—Call CANUTEC collect at [+1-613-996-6666](tel:+16139966666) or [*666](tel:*666) on cellular phones

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Section 2: Hazard(s) Identification



Classification of Hazardous Chemical

GHS Categories

| Criteria | Category | Signal Word | Pictograms |
|---|----------|-------------|-------------|
| Flammable Liquid | 2 | Danger | Flame |
| Eye irritation | 2A | Warning | Exclamation |
| Specific Target Organ Toxicity Single Exposure | 3 | Warning | Exclamation |

Note: The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity). Severity categories rankings do not allow comparisons between classes.

Label Elements

| | |
|---|--|
| Signal Word | DANGER |
| Pictograms | Hazard Statements |
|  | H225: Highly flammable liquid and vapor |
|  | H319: Causes serious eye irritation H336: May cause drowsiness or dizziness |
| Prevention | Precautionary Statements |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P233 | Keep container tightly closed. |
| P240 | Ground and bond container and receiving equipment. |
| P241 | Use explosion-proof electrical, ventilating, and lighting equipment. |
| P243 | Take precautionary measures against static discharge. |
| P261 | Avoid breathing vapors and mist. |
| P271 | Use only outdoors or in well-ventilated area. |

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Continued...

| Prevention | Precautionary Statements |
|--------------------|--|
| P264 | Wash hands thoroughly after handling. |
| P280 | Wear protective gloves, protective clothing, eye protection, and face protection. |
| Response | Precautionary Statements |
| P370 + P378 | In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P337 + P313 | If eye irritation persists: Get medical advice or attention. |
| P304 + P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P312 | Call a POISON CENTRE or doctor if you feel unwell. |
| Storage | Precautionary Statements |
| P403 + P235 | Store in a well-ventilated place. Keep cool. |
| P405 | Store locked up. |
| Disposal | Precautionary Statements |
| P501 | Dispose of contents in accordance to local, regional, and international regulations. |

Hazards Not Otherwise Classified

| Other Criteria | Hazard Statements/Precautionary Statement | Signal Word | Pictograms |
|-----------------------|---|--------------------|-------------------|
| Defats skin | Repeated exposure may cause skin dryness or cracking. | Not applicable | Not applicable |

Section 3: Composition/Information on Ingredients

| CAS # | Chemical Name | %(weight) |
|--------------|---------------------------|------------------|
| 67-63-0 | propan-2-ol ^{a)} | 99.7% |

a) Commonly known as isopropyl alcohol (IPA)

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Section 4: First-Aid Measures

| <i>Exposure Condition</i> | <i>GHS Code: Precautionary Statement</i> |
|-----------------------------|--|
| IF ON SKIN (or hair) | P303 + P361 + P353 |
| Immediate Symptoms | <i>Low toxicity: redness, dry skin</i> |
| Response | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water (or shower). |
| IF IN EYES | P305 + P351 + P338, P337 + P313 |
| Immediate Symptoms | <i>irritation, tearing, redness, pain</i> |
| Response | Rinse cautiously with water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. |
| IF INHALED | P304 + P340 + P312 |
| Immediate Symptoms | <i>cough, dizziness, drowsiness, headaches, weakness</i> |
| Response | Remove person to fresh air and keep comfortable for breathing. If feeling unwell: Call a POISON CENTRE or doctor. |
| IF SWALLOWED | P301 + P330 + P331 |
| Immediate Symptoms | <i>Low toxicity: nausea, dizziness, drowsiness, headaches, abdominal pain, vomiting</i> |
| Response | Rinse mouth. Do NOT induce vomiting. |

Section 5: Fire-Fighting Measures

| | |
|----------------------------|--|
| Response | In case of fire: Use dry chemical, carbon dioxide, water fog, or chemical foam to extinguish. Use water spray to cool containers. |
| Specific Hazards | Vapor may accumulate in low-lying areas. Vapors may travel long distances and ignite at an ignition source, which can cause a flashback or an explosion. |
| Combustion Products | Produces carbon oxides (CO, CO ₂). |
| Fire-Fighter | Wear self-contained breathing apparatus and full fire-fighting turn-out gear. |

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Section 6: Accidental Release Measures

| | |
|----------------------------------|--|
| Personal Protection | Use personal protection recommended in Section 8. |
| Precautions for Response | Remove all sources of ignition. Avoid breathing the vapors and mist. |
| Environmental Precautions | Prevent spill from entering drains and waterways. |
| Containment Methods | Contain with inert absorbent (such as soil, sand, vermiculite). |
| Cleaning Methods | Collect liquid in a sealable, solvent-resistant container. Sprinkle inert absorbent compound onto spill, then sweep into the container. Wash spill area with water. RECOMMENDATION: Use a grounded stainless steel or carbon steel container or a solvent resistant plastic container. |
| Disposal Methods | Dispose of spill waste according to Section 13. |

Section 7: Handling and Storage

| | |
|-------------------|---|
| Prevention | Keep away from children. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground or bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment. Take precautionary measures against static discharge. Avoid breathing mist or vapors. Use only outdoors or in well-ventilated area. Keep container tightly closed. |
| Handling | Wear protective gloves, protective clothing, and eye protection. Wash hands thoroughly after handling. |
| Storage | Store in a well-ventilated area. Keep cool. Store locked up. |

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Section 8: Exposure Controls/Personal Protection

Substances with Occupational Exposure Limit Values

| Chemical Name | Country | Long Term Exposure Limits (PEL) | Short Term Exposure Limits (STEL) |
|----------------------|-----------------|--|--|
| propan-2-ol | ACGIH | 200 ppm (TWA) | 400 ppm |
| | U.S.A. OSHA PEL | 400 ppm | Not established |
| | Canada AB | 200 ppm | 400 ppm |
| | Canada BC | 200 ppm | 400 ppm |
| | Canada ON | 200 ppm | 400 ppm |
| | Canada QC | 400 ppm | 500 ppm |

Note: The ACGIH¹, OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from the RTECS database² and from suppliers' SDSs were also consulted. Short term exposure limits (STEL) are usually for 15 min and long term permissible exposure limits (PEL) for 8 h.

Engineering Controls

Ventilation Keep airborne concentrations below the occupational exposure limits (OEL).

Personal Protective Equipment

Eye protection Wear appropriate protective eyeglasses or chemical safety goggles.
RECOMMENDATION : Use safety glasses with lateral protection (side shields).

Skin Protection For likely contacts, use of protective butyl rubber, nitrile, neoprene, polyethylene gloves or other chemically resistant gloves.
For incidental contacts, use disposable nitrile or neoprene gloves, or other chemically resistant gloves.
Do NOT use latex rubber, polyvinyl alcohol (PVA) or PVC gloves.

Respiratory Protection For over-exposures up to 10 x OEL of mist, vapors, and spray, wear respirator such as a half-mask respirator with organic vapor cartridges.
Above 10 x OEL, use a positive-pressure, air-supplied respirator or a self-contained breathing apparatus.

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RECOMMENDATION : Consult your local safety supply store to ensure that your respirator has a NIOSH (U.S.) approved filter cartridges appropriate for the ingredients listed in Section 3. The respirator should be fitted to the employee by a professional. Ensure vapor cartridges are stored in sealed plastic bags when not being used.

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

Section 9: Physical and Chemical Properties

| | | | |
|----------------------------------|-----------------------|--|--------------------------------------|
| Physical State | Liquid | Lower Flammability Limit | 2% |
| Appearance | Colorless | Upper Flammability Limit | 12% |
| Odor | Alcohol like | Vapor Pressure @20 °C | 4.2 kPa [32 mmHg] |
| Odor Threshold | 0.44 ppm | Vapor Density | 2.1 (Air =1) |
| pH | Not available | Relative Density @25 °C | 0.785 |
| Freezing/Melting Point | -88 °C [-126 °F] | Solubility in Water | Fully miscible |
| Initial Boiling Point | ≥81.8 °C [≥179 °F] | Partition Coefficient-octanol/water | Not available |
| Flash Point ^{a)} | 12 °C [54 °F] | Auto-ignition Temperature | 425 °C [797 °F] |
| Evaporation Rate | 1.5 (ButAc = 1) | Decomposition Temperature | Not available |
| Flammability | Highly flammable | Viscosity @20 °C | 2.4 mPa· [3.1 mm ² /s] |

a) Tag closed cup value

106**Section 10: Stability and Reactivity**

| | |
|----------------------------|---|
| Reactivity | At elevated temperatures, may react with aluminum and generate hydrogen gas. |
| Chemical Stability | Chemically stable at normal temperatures and pressures |
| Conditions to Avoid | Ignition sources, excessive heat, and incompatible substances. Vapors may form explosive mixture with air. |
| Incompatibilities | Strong oxidizing agents, strong acids, strong bases, halogenated compounds, aluminum at temperatures ≥ 49 °C [> 120 °F] |
| Polymerization | Will not occur |
| Decomposition | Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5. |

Section 11: Toxicological Information**Summary of Effects and Symptoms by Routes of Exposure**

| | |
|-------------------|--|
| Eyes | Causes serious redness, eye irritation, tearing, or pain. |
| Skin | Causes dry skin and redness. |
| Inhalation | May cause cough, drowsiness or dizziness. Excessive exposure may cause narcotic effects, weakness, headaches, and unconsciousness. |
| Ingestion | May be harmful if swallowed. See inhalation symptoms. |
| Chronic | Prolonged or repeated exposure may defat skin and cause skin dryness and cracking, and local redness and discomfort. |

Acute Toxicity (Lethal Exposure Concentrations)

| Chemical Name | LD50 oral | LD50 dermal | LC50 inhalation |
|----------------------|--------------------|------------------------|------------------------|
| propan-2-ol | 5 840 mg/kg Rat | 12 800 mg/kg Rabbit | 16 000 ppm 8 h Rat |

Note: Toxicity data from the RTECS² and ECHA databases were consulted. The data from supplier SDSs were also consulted.

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106**Other Toxicological Effects**

| | |
|--|--|
| Skin corrosion/irritation | Based on available data, the classification criteria are not met. Propan-2-ol may provoke a light irritation of the skin according to Draize tests on rabbits. |
| Serious eye damage/irritation | Propan-2-ol causes severe eye irritation based on Draize tests on rabbits. |
| Sensitization (allergic reactions) | Based on available data, the classification criteria are not met. |
| Carcinogenicity (risk of cancer) | Not classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP. |
| Mutagenicity (risk of heritable genetic effects) | Based on available data, the classification criteria are not met. |
| Reproductive Toxicity (risk to sex functions) | Based on available data, the classification criteria are not met. |
| Teratogenicity (risk of fetus malformation) | Based on available data, the classification criteria are not met. |
| STOT-single exposure | Propan-2-ol can affect the central nervous system by inhalation causing drowsiness or dizziness. |
| 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. There are no category 1 components. |

106**Section 12: Ecological Information**

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (<http://echa.europa.eu>), and other reliable sources.

Propan-2-ol are not classifiable as toxic for the aquatic environment (with minimal LC50 of >100 mg/L).

- Propan-2-ol is readily biodegradable and has a minimal LC50 96 h of 9 640 mg/L for Pimephales promelas (fathead minnow); an EC50 24 h of 5 102 mg/L Daphnia magna (water flea); and an EC50 72 h of >2 000 mg/L Desmodesmus subspicatus (green algae).

Acute Ecotoxicity

Based on available data, the classification criteria are not met.

Chronic Ecotoxicity

Based on available data, the classification criteria are not met.

Biodegradability

Readily biodegradable in aquatic and atmospheric environment. The constituent is volatile.

Other Effects**Volatile Organic Compounds (VOC) content**

Actual VOC = 100% (785 g/L)

CONSUMER PRODUCT VOC DILUTION REQUIREMENTS

Residential or institutional users in California and other states (IL, IN, MI, OH, CO, CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT, VA, DC, UT) with Electronic Cleaners 75% VOC limits must dilute the product 3:1 with water or acetone prior to use.

Section 13: Disposal Information

Dispose of contents in accordance with all local, regional, national, and international regulations.

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Section 14: Transport Information

Ground

Refer to TDG (Canadian Transportation of Dangerous Goods regulations) and USA DOT 49 CFR Regulations.

Sizes 1 L and under
106-250ML, 106-500ML

106-1L

Limited Quantity



Sizes greater than 1 L
106-4L, 106-20L

UN number: UN1219
Shipping Name: ISOPROPANOL
Class: 3
Packing Group: II
Marine Pollutant: No



Air

Refer to ICAO-IATA Dangerous Goods Regulations.

Sizes 0.5 L and under

106-250ML, 106-500ML

Limited Quantity

Max Net Qty/Outer Pkg
= 1 L



Sizes 0.5 L up to 5 L (passenger),
60 L (cargo)
*106-1L, 106-4L
106-20L*

UN number: UN1219
Shipping Name: ISOPROPANOL
Class: 3
Packing Group: II
Marine Pollutant: No



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Sea

Refer to IMDG regulations.

Sizes 1 L and under
106-250ML, 106-500ML

106-1L Limited
Quantity



Sizes greater than 1 L
106-4L, 106-20L

UN number: UN1219
Shipping Name: ISOPROPANOL
Class: 3
Packing Group: II
Marine Pollutant: No



Note: Shipper must be appropriately trained and certified before involvement with the transport of dangerous goods.

Section 15: Regulatory Information

Canada

Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)

All hazardous ingredients are listed on the DSL/NDSL.

Hazardous Products Act (R.S.C., 1985, c. H-3)

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.

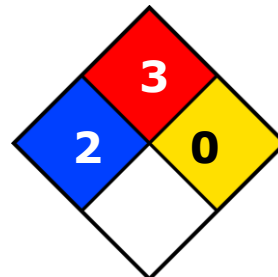
USA

Other Classifications

HMIS® RATING

| | |
|-----------------------------|----------|
| HEALTH: | 2 |
| FLAMMABILITY: | 3 |
| PHYSICAL HAZARD: | 0 |
| PERSONAL PROTECTION: | |

NFPA® 704 CODES



Approximate HMIS and NFPA Risk Ratings Legend:

0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

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CAA (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product does not contain substances that are listed as hazardous air pollutants.

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product contains up to $\geq 99.7\%$ propan-2-ol (CAS # 67-63-0) which is subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity, USA).

This product does not contain any of the listed substances.

Europe

RoHS (Restriction of Hazardous Substances Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, PBDE's, DEHP, BBP, DBP, or DIBP and complies with European RoHS regulations.

WEEE (Waste Electrical and Electronic Equipment Directive)

This product is not a piece of electrical or electronics equipment, and is therefore not governed by this regulation.

Section 16: Other Information

SDS Prepared by Regulatory Department

Date of Revision 14 August 2020

Reason for Changes: Update to the emergency phone number information.

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Reference

- 1) ACGIH 2017 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2017).
- 2) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

Abbreviations

| | |
|-------|---|
| ACGIH | American Conference of Governmental Industrial Hygienists (USA) |
| ECHA | European Chemicals Agency |
| EU | European Union |
| EC50 | Half maximal effective concentration |
| EL50 | Half maximal effective loading |
| IARC | International Agency for Research on Cancer |
| NOELR | No observable effect loading ratio |
| NTP | National Toxicology Program |
| GHS | Globally Harmonized System of Classification of Labeling of Chemicals |
| LC50 | Lethal Concentration 50% |
| LCLo | Lowest published lethal concentration |
| LD50 | Lethal Dose 50% |
| OEL | Occupational Exposure Limit |
| PEL | Permissible Exposure Limit |
| SDS | Safety Data Sheet |
| STEL | Short-Term Exposure Limit |
| TCLo | Lowest published toxic concentration |
| TWA | Time Weighted Average |
| VOC | Volatile Organic Content |

Technical Queries Contact us regarding any questions, improvement suggestions, or problems with this product.

Visit

Web: www.dustronics.com

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