

SAFETY DATA SHEET

INKCUPS

Candymark Edible Ink Candymark Yellow

Inkcups requests that the users of this product study this Material Safety Data Sheet (MSDS) and become aware of product hazards and safety information. To promote safe use of this product, a user should notify its employees, contractors and agents of the information in this MSDS and any product hazards and safety information.

Section 1. Identification

Product name : Candymark Edible Ink

Product code : Candymark Yellow

Use of the substance/mixture

Manufacture of pharmaceutical products and/or Manufacture of food products

Company : Inkcups Corp.
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Section 2. Hazards identification

Classification of the substance or mixture : Not classified.

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 7%

GHS label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Hazards not otherwise classified : None known.

See Section 11 for more detailed information on health effects and symptoms.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
ISOPROPYL ALCOHOL	1 - 5	67-63-0

Any concentration shown as a range is to protect confidentiality.

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.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Affected individual should remove contact lens, if present. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation occurs.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur.

Skin contact : In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Get medical attention if irritation develops.

Section 4. First aid measures

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Flammability of the product : Non-flammable.

Products of combustion : No specific data.

Fire-fighting media and instructions : Use an extinguishing agent suitable for the surrounding fire.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions : Keep unnecessary personnel away. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Use suitable protective equipment (section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up : Small spill : Absorb with an inert material and place in an appropriate waste disposal container.
Large spill : Use appropriate containment to avoid environmental contamination. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Contaminated absorbent material may pose the same hazard as the spilled product. Use a non-sparking or explosion proof means to transfer material to a sealed, appropriate container for disposal.

Section 7. Handling and storage

Handling : Do not ingest. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation. Do not reuse container.

Storage : Keep container tightly closed. Store in a dry, cool and well-ventilated area. Store away from incompatible materials (see Section 10). Store in accordance with local regulations.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
ISOPROPYL ALCOHOL	ACGIH TLV (United States, 3/2016). TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes. OSHA PEL 1989 (United States, 3/1989). TWA: 400 ppm 8 hours. TWA: 980 mg/m ³ 8 hours. STEL: 500 ppm 15 minutes. STEL: 1225 mg/m ³ 15 minutes. NIOSH REL (United States, 10/2013). TWA: 400 ppm 10 hours. TWA: 980 mg/m ³ 10 hours. STEL: 500 ppm 15 minutes. STEL: 1225 mg/m ³ 15 minutes.

Section 8. Exposure controls/personal protection

OSHA PEL (United States, 6/2016).

TWA: 400 ppm 8 hours.

TWA: 980 mg/m³ 8 hours.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- 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.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : 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, gases 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.
- Skin protection**
- Hand protection** : 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.
- Body protection** : 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.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Values provided should not be construed as specifications. See product specification for additional information.

- Physical state** : Liquid.
- Appearance** : Yellow Liquid
- Flash point** : Closed cup: 95°C (203°F)
- Boiling point** : Lowest known value: 83°C (181.4°F) (Isopropyl alcohol). Weighted average: 121.45°C (250.6°F)
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Neutral.
- Melting point/freezing point** : May start to solidify at the following temperature: 0°C (32°F) This is based on data for the following ingredient: water. Weighted average: -6.72°C (19.9°F)
- Evaporation rate** : Highest known value: 1.7 (Isopropyl alcohol) Weighted average: 0.28 compared with butyl acetate
- Flammability (solid, gas)** : Not applicable.
- Upper/lower flammability or explosive limits** : Greatest known range: Lower: 2.6% Upper: 12.6% (propane-1,2-diol)
- Vapor pressure** : Highest known value: 4.4 kPa (33 mm Hg) (at 20°C) (Isopropyl alcohol). Weighted average: 2.61 kPa (19.58 mm Hg) (at 20°C)
- Vapor density** : Highest known value: 2.6 (Air = 1) (propane-1,2-diol). Weighted average: 2.52 (Air = 1)
- Relative density** : Weighted average: 1 (Water = 1)
- Solubility(ies)** : Not available.

Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Lowest known value: 371°C (699.8°F) (propane-1,2-diol).
Decomposition temperature	: Not available.
Viscosity	: Dynamic: Highest known value: 43.43 cP (propane-1,2-diol)
Explosive properties	: Not available.
Oxidizing properties	: Not available.

Section 10. Stability and reactivity

Reactivity	: Not available.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: No specific data.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Ingredient name	CAS #	Result	Species	Dose	Exposure
ISOPROPYL ALCOHOL	67-63-0	LD50 Dermal	Rabbit	12800 mg/kg	-
		LD50 Oral	Rat	5000 mg/kg	-

Chronic effects

Ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
ISOPROPYL ALCOHOL	A4	3	-	-	-	-

Additional information :

Not available.

Other toxic effects on humans

No known significant effects or critical hazards. Avoid prolonged contact with eyes, skin and clothing.

Specific effects on humans

Mutagenicity / Teratogenicity / Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	166666.7 mg/kg

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

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

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No specific data.
Inhalation	: No specific data.

Section 11. Toxicological information

Skin contact : No specific data.

Ingestion : No specific data.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
ISOPROPYL ALCOHOL	Acute EC50 929 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1400000 to 1950000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 4200 mg/l Fresh water	Fish - Rasbora heteromorpha	96 hours

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
ISOPROPYL ALCOHOL	0.05	-	low

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

This product is not regulated for carriage according to ADR/RID, IMDG, ICAO/IATA.

Section 15. Regulatory information

United States

U.S. Federal regulations : TSCA 8(a) PAIR: Siloxanes and Silicones, di-Me
 TSCA 8(a) CDR Exempt/Partial exemption: Not determined
 United States inventory (TSCA 8b): All components are listed or exempted.
 SARA 302/304: sulphuric acid
 SARA 311/312 Hazards identification: Immediate (acute) health hazard
 Clean Water Act (CWA) 311: sulphuric acid
 Clean Air Act (CAA) 112 accidental release prevention: No products were found.

SARA 313	Product name	CAS number	Concentration
Form R - Reporting requirements	: Isopropyl alcohol	67-63-0	1 - 5
Supplier notification	: Isopropyl alcohol	67-63-0	1 - 5

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

Section 15. Regulatory information

- State regulations**
- : **Connecticut Carcinogen Reporting:** None of the components are listed.
 - Connecticut Hazardous Material Survey:** None of the components are listed.
 - Florida substances:** None of the components are listed.
 - Illinois Chemical Safety Act:** None of the components are listed.
 - Illinois Toxic Substances Disclosure to Employee Act:** None of the components are listed.
 - Louisiana Reporting:** None of the components are listed.
 - Louisiana Spill:** None of the components are listed.
 - Massachusetts Spill:** None of the components are listed.
 - Massachusetts Substances:** The following components are listed: ISOPROPYL ALCOHOL; 2-PROPANOL
 - Michigan Critical Material:** None of the components are listed.
 - Minnesota Hazardous Substances:** None of the components are listed.
 - New Jersey Hazardous Substances:** The following components are listed: PROPYLENE GLYCOL; 1,2-PROPANEDIOL; ISOPROPYL ALCOHOL; 2-PROPANOL
 - New Jersey Spill:** None of the components are listed.
 - New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.
 - New York Acutely Hazardous Substances:** None of the components are listed.
 - New York Toxic Chemical Release Reporting:** None of the components are listed.
 - Pennsylvania RTK Hazardous Substances:** The following components are listed: 1, 2-PROPANEDIOL; ISOPROPYL ALCOHOL MANUFACTURE (STRONG-ACID PROCESS)
 - Rhode Island Hazardous Substances:** None of the components are listed.

California Prop. 65

WARNING: This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

<u>Ingredient name</u>	<u>Cancer</u>	<u>Reproductive</u>	<u>No significant risk level</u>	<u>Maximum acceptable dosage level</u>
sulphuric acid	Yes.	No.	No.	No.

Canada

<u>Hazardous ingredients (Canada)</u>	<u>%</u>	<u>CAS number</u>
PROPYLENE GLYCOL	10 - 30	57-55-6
ISOPROPYL ALCOHOL	1 - 5	67-63-0

WHMIS (Canada) : Class D-2B: Material causing other toxic effects (Toxic).

- Canadian lists**
- : **CEPA Toxic substances:** None of the components are listed.
 - Canadian ARET:** None of the components are listed.
 - Canadian NPRI:** The following components are listed: Isopropyl alcohol
 - Alberta Designated Substances:** None of the components are listed.
 - Ontario Designated Substances:** None of the components are listed.
 - Quebec Designated Substances:** None of the components are listed.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. See Section 11 for more detailed information on health effects and symptoms.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health	1
Flammability	1
Physical hazards	0

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

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



Section 16. Other information

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue : 20 July 2017

Date of previous issue : No previous validation

 Indicates information that has changed from previously issued version.

Notice to reader

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.

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