

Safety Data Sheet

According to OSHA 29 CFR 1910.1200 HCS & Canada WHMIS

Revision Date : 26.02.2014

SECTION 1: Product and Company Identification

1.1. Product identifier

Product Name : Jiffy Artline Paint Marker EK-400 Color : (Light blue)

1.2. Recommended use of the chemical and restrictions on use

Recommended use : Permanent marker ink

1.3. Details of the supplier of the safety data sheet

Supplier Company Name : Jiffco International Ltd.
 Address : 835 - West 3rd Street North Vancouver , BC V7P 3K7 Canada
 Telephone : 604-980-2685
 Fax : 604-980-8549
 Contact (e-mail) : sales@jiffco.net

Manufacturer Company Name : Shachihata Inc.
 Address : 4-69,Amazuka-cho,Nishi-ku,Nagoya City,451-0021,Japan
 Telephone : +81-52-521-3600
 Fax : +81-52-521-3899
 Contact (e-mail) : chem-analysis@ngy.shachihata.co.jp

1.4. Emergency telephone number

Telephone : 604-657-9822

SECTION 2: Hazard(s) identification

United States (US) : According to OSHA 29 CFR 1910.1200 HCS 2012

2.1.1 Classification of the substance or mixture

| | | |
|--|------|---|
| Flammable liquids, Category 2 | H225 | : Highly flammable liquid and vapour |
| Aspiration toxicity, Category 1 | H304 | : May be fatal if swallowed and enters airways |
| Skin corrosion / irritation , Category 2 | H315 | : Causes skin irritation |
| Specific target organ toxicity - single exposure, Category 3 | H336 | : May cause drowsiness or dizziness |
| Hazardous to the aquatic environment, chronic toxicity, Category 2 | H411 | : Toxic to aquatic life with long lasting effects |

2.1.2 Label elements

Hazard pictograms :



Signal word : Danger

| | | | |
|------------------|---|---|--------|
| Hazard statement | : | Highly flammable liquid and vapour | (H225) |
| | | May be fatal if swallowed and enters airways | (H304) |
| | | Causes skin irritation | (H315) |
| | | May cause drowsiness or dizziness | (H336) |
| | | Toxic to aquatic life with long lasting effects | (H411) |

Precautionary statement

【Prevention】

| | |
|--|--------|
| Keep away from heat/sparks/open flames/hot surfaces. - No smoking. | (P210) |
| Take precautionary measures against static discharge. | (P243) |
| Avoid breathing dust/fume/gas/mist/vapours/spray. | (P261) |
| Wear protective gloves/protective clothing/eye protection/face protection. | (P280) |
| Wash hands thoroughly after handling. | (P264) |
| Use only outdoors or in a well-ventilated area. | (P271) |
| Avoid release to the environment. | (P273) |

【Response】

- In case of fire : Use dry chemical powder, form or carbon dioxide for extinction. (P370+P378)
- IF SWALLOWED : Immediately call a POISON CENTER or doctor/physician. (P301+P310)
Get medical advice/attention if you feel unwell. Rinse mouth. (P301+P314+P330)
- IF INHALED : Remove victim to fresh air and keep at rest in a position comfortable for breathing. (P304+P340)
- IF IN EYES : Rinse cautiously with water for several minutes. (P305+P351+P338)
Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists : Get medical advice/attention. (P337+P313)
- IF ON SKIN (or hair) : Remove/Take off immediately all contaminated clothing. (P303+P361+P353)
Rinse skin with water/shower.
- IF ON SKIN : Wash with plenty of soap and water. (P302+P352)
- If skin irritation occurs : Get medical advice/attention. (P332+P313)
- Do NOT induce vomiting. (P331)
- Collect spillage. (P391)

【Storage】

Store in a well-ventilated place. Keep container tightly closed. (P403+P233)

【Disposal】

Dispose of contents/container to waste in accordance with (P501)
local/regional/ national/international regulation (to be specified).

2.1.3 Other hazards

Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada : According to WHMIS

2.2.1 Classification of the substance or mixture

Class B2 : Flammable Liquids

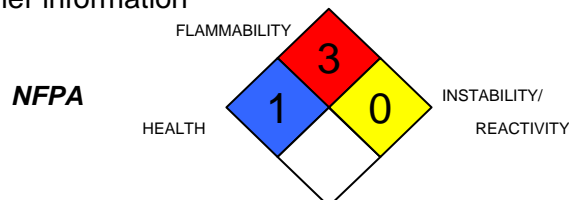
2.2.2 Label elements



2.2.3 Other hazards

In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS)

2.3 Other information



HMIS



SECTION 3: Composition/information on ingredients

Substance/Mixture : Mixture
Ingredients :

| Chemical Name / Generic name | Composition weight % | CAS Registry No. | Classification (OSHA HCS 2012) | |
|---------------------------------|-------------------------|---------------------|---|--------------------------------------|
| | | | Hazard Class | Hazard statement |
| Isoparaffinic Hydrocarbon | 45 ~ 55 | 64741-66-8 | Flam.Liq. 2 Asp. Tox. 1 Skin Irrit.2 STOT.SE. 3 Aquatic Chronic 2 | H225 H304 H315 H336 H411 |
| Titanium dioxide | 5 ~ 15 | 13463-67-7 | none | none |
| Organic pigment | 1 ~ 10 | Confidential | none | none |
| Synthetic resin | 30 ~ 40 | Confidential | none | none |
| total | 100 | | | |

SECTION 4: First-aid measures

4.1. Description of first aid measures

- IF INHALED : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Consult a doctor if symptoms persist.
- IF ON SKIN : Remove/Take off immediately all contaminated clothing. Wash with soap and water. If skin irritation/rash occurs or feel unwell, consult a doctor for medical advice.
- IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
- IF SWALLOWED : After rinse mouth immediately, give about 250 ml of water or milk and thin in the stomach, and do not vomit forcibly. Moreover, do not give anything from the mouth to the patient when not conscious. Receive the doctor's treatment (stomach pump) promptly.

Note to Physicians :

All treatments should be based on observed signs and symptoms of distress in the patient.

Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Dry chemical powder, foam or carbon dioxide
- Unsuitable extinguishing media : Water jet

5.2. Special hazards arising from the substance or mixture

For initial stage extinction, carbon dioxide or dry chemical powder.

When a fire extends, fire is extinguished by a large amount of water spray.

Do not discharge extinguishing waters into the aquatic environment.

5.3. Advice for firefighters

In the extinction work, an appropriate protective equipment (gloves, glasses, and mask) has to be worn.

Because during a fire, hazardous gases may be generated, fire-fighters have to wear self-contained breathing apparatus and other protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe area. Shut off all sources of ignition.

No Flares, smoking or flame in area. Put on protective equipment. Ensure adequate ventilation.

6.2. Environmental precautions

Do not throw the leakage thing directly into environment

6.3. Methods and material for containment and cleaning up

In case of a small spill, absorb with dry sand, soil, sawdust, cloth, etc., then place in a chemical waste containers.

In case of large spills, dike and prevent overflow, cover spills with foam, then place in a chemical container using non-sparking tools.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Advice on safe handling : Use with adequate ventilation.
- Avoid contact with skin, eyes and clothing.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage : Keep containers tightly closed and store in a cool and dry place.

areas and containers : Keep away from heat and flame, ignition source and sunlight.

Keep out of the reach of children.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ACGIH (2013)

Titanium dioxide

TWA

10 mg/m³

OSHA PEL

Titanium dioxide TWA 15 mg/m³

Canada Ontario Provincial

Titanium dioxide TWA 10 mg/m³

Canada Quebec Provincial

Titanium dioxide TWA 10 mg/m³

8.2. Exposure controls

Personal protective equipment

- Respiratory Protection : Use with local exhaust ventilation, when in long use.
Avoid breathing vapours. Wear mask to prevent organic gas, if necessary.
- Hand Protection : Avoid contact with hands. Wear safety gloves, if necessary.
- Eye Protection : Avoid contact with eyes. Wear safety glasses, if necessary.
- Skin Protection : Avoid skin contact. Wear personal protection apron, boots, if necessary.

Environmental exposure controls

- General advice : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- Appearance : light blue liquid
- Odor : minor solvent odor
- pH : Not applicable
- Boiling point : No data available
- Flash point : 51.8 °F (11 °C) (closed cup)
- Relative Density (at 77 °F, 25 °C) : 0.8 ~ 1.0 (g/cm³)
- Solubility in Water : Insoluble

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.3. Chemical stability

The product is stable.

10.4. Conditions to Avoid

High temperature, Direct sunlight, Fire

10.5. Incompatible Materials

No data available

10.6. Hazardous decomposition products

CO, CO₂

SECTION 11: Toxicological information

11.1. Information on toxicological effects

- Acute toxicity : LD/LC50 values that are relevant for classification
[Isoparaffinic Hydrocarbon]
- | | | |
|----------------|------|-------------|
| Oral-rat | LD50 | >5,000mg/kg |
| Inhalation-rat | LC50 | 21 mg/l/4H |
| Dermal-rabbit | LD50 | >2,000mg/kg |

Aspiration toxicity, Category 1 : Category 1 May be fatal if swallowed and enters airways.

Skin corrosion / irritation : Category 2 Causes skin irritation.

Specific target organ toxicity : Category 3 May cause drowsiness or dizziness.
single exposure

Carcinogenicity : Titanium dioxide has been classified by the IARC as Group 2B.
Other materials ; Not listed by IARC, ACGIH, OSHA or NTP .

Regarding the carcinogenicity of titanium dioxide, International Agency for Research on Cancer (IARC) has classified as a group 2B. However, ACGIH (American Conference of Governmental Industrial Hygienists), OSHA (Occupational Safety and Health Administration), NTP (National Toxicology Program, USA) in the classification of suspected carcinogenic to humans has not been done. Therefore, we could not classify the carcinogenicity of GHS from that there is no sufficient data.

SECTION 12: Ecological information

- 12.1. Ecotoxicity : Category 2 Toxic to aquatic life with long lasting effects
- 12.2. Persistence and degradability : No data available
- 12.3. Bioaccumulative potential : No data available
- 12.4. Mobility in soil : No data available
- 12.5. Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

- 13.1. Waste treatment methods
 - Disposal must be made according to official regulations.
 - Comply with all Federal, State, and Local regulations regarding disposal.
 - Do not allow product to reach ground, any water course or sewage system.

SECTION 14: Transport information

- 14.1. UN number DOT, TDG, IMO / IMDG, IATA / ICAO : UN1210
- 14.2. UN proper shipping name DOT, TDG, IMO / IMDG, IATA / ICAO : PRINTING INK, flammable
- 14.3. Transport hazard class(es) DOT, TDG, IMO / IMDG, IATA / ICAO :
 - Class 3 (Flammable liquids.)
 - Label 3
- 14.4. Packing group DOT, TDG, IMO / IMDG, IATA / ICAO : II
- 14.5. Environmental hazards Marine pollutant : No
- 14.6. Special precautions for user EMS Number : F-E, S-D
- 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.



SECTION 15: Regulatory information

< USA Information >

- OSHA STATUS : This product is hazardous under 29 CFR 1910.1200.
- TSCA inventory : All components of this product are listed in the TSCA Inventory.
- TSCA Hazard Communication Program (40 CFR Part 721) (SNUR) : not Listed
- EPCRA Section 302 Extremely Hazardous Substances (EHS) : not Listed
- EPCRA Section 313 Toxic Chemicals : not Listed
- CERCLA Hazardous Substances : not Listed
- CAA Section 112(r) List of Substances for Accidental Release Prevention : not Listed
- California Proposition 65 : not Listed

< Canada Information >

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

- Canada inventory : All components of this product are listed in the DSL/NDL Inventory.

- WHMIS Ingredient Disclosure List (SOR/88-64) : not Listed

(WHMIS : Canadian Workplace Hazardous Material Information System)

SECTION 16: Other information, including date of preparation or last revision

Last Revision Date : 26.02.2014
Preparation Date : 02.04.2007



EU RoHS Directive(2002/95/EC) and ELV Directive(2000/53/EC)
This product does not contain lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) or polybrominated diphenylethers (PBDE).

This data sheet may not be enough when evaluating danger or hazard. The above information, which is created from currently available documents, information and data, may be revised when new findings are announced. This document has been written on the assumption that when dealing with a large amount of ink on the business case and emergency. When handling as a normal product, please refer to the notes that are described in the product or packaging. The information contained herein is not intended to provide any kind of warranty other than information, there is no guarantee for the accuracy of the content.