

## Material Safety Data Sheet

Issued Date: August 25, 2017

### 1, Product and Company information

Product Name: Liquid Candle

Another Name: Alkanes, CS-12, branched & hnear

Recommended Usage: Industrial Solvents

Company Name and Address: Kameyama Co., Ltd.

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### 2, Hazardous Identification

Name of Classification by Japanese Standard: Ignitable Liquid

GHS Classification: Ignitable Liquid group 3

Inhalation Respirator Toxicity: group 1

Skin Corrosivene88/Stimulation: group 3

GHS Labels: see the translation source

Safety Phrases: Danger

Hazard and Toxic Information: Physically dangerous: ignitable liquid and vapor

Health Hazards:

It is fatal to ingest. Slightly stimulates skin.

Environmental Hazards: It is NOT applicable to environmental hazards by GHS Classification standard.

Precautions: Prevention: Keep away from heat, spark, naked fire, or high-temperature substances. No Smoking. Close containers tightly. Earth all the containers and receivers. Use explosion-proof electronics, ventilators, and lights. Use tools which don't generate spark. Prevent electronic discharge. Wear protective equipment that manufacturer/supplier specifies.

Reaction:

Ingestion: Immediately see a physician. Do not induce to vomit.

Skin: Take contaminated clothes off Wash skin with water. If irritation persists, see a physician. In case if fire uses appropriate methods that manufacturer/supplier specifies.

Storage:

Store them in cool and well-ventilated area. Lock the storage.

Disposal:

When disposing contents or containers, follow Federal/Local rules and regulations.

Other Hazardous Information:

- This product may generate ignitable/explosive vapor or air mixture.
- This product may generate electrostatic when a pump is working. It might be a source of fire.
- Repetitive exposure causes dry skin and fissure.
- Vapor might lead to dizziness and drowsiness.

Worsening the Condition of disease

- Exposure to this product might worsen the health condition of skin and central nervous system.

### 3. Composition and Ingredients

Another Name: Alkanes, C8-12, branched & linear

Law Concerning the Examination and Regulation of Manufacture 2-9, 2-10, 9-1690

Single/Mixture: Mixture

Hazardous and Toxic Compositions (GHS)

Chemical Product information: Alkanes, C10-14

CAS: 93924-07-3

Low concerning the examination and regulation of manufacture: (2)-10

Identify Number: 300-199-7

Density (%) : 100%W

### 4. First Aid Measures

Inhalation: Move to fresh air. If it takes a long time to recover, see a physician.

Skin: Take contaminated clothes off. Wash contacted part with water and soap.

Eyes: Rinse eyes with plenty of water. If irritation persists, see a physician.

Ingestion: DO NOT induce vomiting. See a physician immediately. If a victim vomits, position his/her head lower than lower body to not to swallow vomit.

What to inform a physician

The most important acute/late symptoms:

Inhaling highly dense vapor leads to dizziness, headache, nausea, and disorder in central nervous system. Repetitive inhalation further leads to syncope or death.

Symptoms of skin irritation includes and/or, rubefaction, swell, and blisters. Symptoms of eye irritation includes rubefaction, swell, and blurry vision. If this product is in lungs, cough, suffocation, dyspnea, breast engorgement, breathless, and fever might be caused.

Important Points on First Aid Measures:

- Central nervous system restraint will be caused. Prolonged exposure or repetitive exposure causes skin irritation. Chemical Interstitial lung disease might possibly be caused. Maintain airway management, then consider to gastric lavage and dosage of activated carbon. Contact a physician or Toxic Substance Control Center to ask for advice.

## 5. Fire Fighting Measures

Evacuate everyone except for designated personnel.

Hazardous Identification: Incomplete combustion will generate carbon monoxide.

This product can be floated in the water, and re-ignited. Vapor is heavier than the air, and it spreads along the ground. It might cause distant ignition.

Extinguishing Media: foam, water spray or mist. If the fire is small, use dry chemical, carbon dioxide, sand, or soil DO NOT drain water for extinguishing purpose into aquatic environment.

Inappropriate Extinguishing Media: straight stream of water

Protective Equipment for Fire Fighters: wear full-body protective clothes and self contained breathing apparatus

Additional Information: spray water to cool containers down

## 6. Accidental Release Measures

Restrictly follow any related domestic/international laws.

#### Personal Precautions and Protective Equipment:

Avoid contacting with leaked/released substance. Remove all the polluted clothes.

#### Environmental Precautions:

If it is not too dangerous, shut the leakage down. Remove all sources of ignition.

In order to prevent environmental pollution, make stopbank in surroundings. Use fog spray to direct vapor to the area. Prevent electronic discharge. Earth all the machines and electronics. Supervise the area by using combustible gas indicator.

#### Containment and Purification Method:

If spillage is less than 200 liters, either collect products or use a machinery to collect them into airtight containers. As for leftovers, either let them evaporate or use absorbent materials. Dispose polluted soil safely. If spillage is over 200 liters, either collect them or use a vacuum car to put them into a bin DO NOT wash leftovers by water. Keep them as pollutant disposal.

Leftovers should be evaporated or absorbed to dispose. Dispose polluted soil safely.

### 7. Handling and Storage

#### General Prevention Measures:

DO NOT inhale or touch this product. Only use this product in well-ventilated area.

Wash hands carefully using this product. See page 8 for choice of protective equipment.

Refer to the information in this MSDS to decide appropriate control unit, disposal, storage, and handling.

#### Precautions for Safety Handling:

No fire should be nearby whatsoever. No smoking. Remove the source of ignition.

Avoid spark, as well as contacting eyes, skin, and clothes. Static charge will be around when a pump is working. Electrostatic discharge might ignite the fire. All the machines should be connected and earthed, and maintain electronic continuity. When transporting a pump, restrain Ene speed to avoid electrostatic discharge. DO NOT splash this product when pouring it into a container. DO NOT use compressed air for pouring, draining, and handling.

#### Conditions for Safety Storage:

Keep away from sunlight and sources of ignition. Store them in a well-ventilated, oil weir. DO NOT store them with aerosol, burnables, oxidants, corrosive chemical, and

other toxic combustibles. The temperature in storage should be room temperature.

#### Transporting

Always close the lid tightly besides the time using this product. DO NOT use compressed air for pouring, draining, and handling.

#### Recommended Material:

For inside a container, use mild steel and stainless steel. For inside coating, use epoxy coating and zinc silicate coating.

#### Inappropriate Material:

Avoid prolonged contact with natural rubber, butyl, and nitrile rubber.

#### Precautions for Containers:

Even if a container is empty, it might contain explosive gas. DO NOT cut, make a hole, scrub, mend, and do similar tasks near or above a container.

#### Others:

Handling and Storage should be in accordance with local regulations.

### 8. Exposure and Personal Protection

#### Engineering Control:

Necessary type and level of control unit depends on potential exposure condition. Select control unit based on risk assessment at local environment. Below is appropriate measures; Install explosion-proof ventilation to control industrial environmental density to be less than exposure criteria and indicators/ limit, Furnish emergency shower and eyewash station.

#### Protective Equipment:

Personal Protective Equipment must meet national standard. Contact a supplier.

#### Respiratory protective equipment:

If engineering control does NOT function to maintain healthy and harmless environmental gas density, wear adequate respiratory protective equipment which meets all the related regulations. Contact a supplier. If a respirator with air filter is adequate, select suitable filter and mask. Choose a filter that matches with EN141 and organic gas (vapor boiling point, which is more than 65°C). If respirator with air filter is

not suitable, use positive pressure respirator equipment

#### Hand Protections:

It needs long-term protection. Nitrile rubber gloves. Preventing accidental contact and splash. PVC or neoprene rubber gloves. Maintaining personal hygiene is an essential element in effective hand care. Even if using gloves, hands need to be washed and dried completely. Use moisturizer without fragrance.

#### Eye Protections:

Wear goggles.

#### Protective Clothes:

Wear chemical-proof protective clothes and boots.

Heat: Not applicable

#### Environmental Release Control:

Strictly follow national policy on volatile substance regulations.

### 9. Physical and Chemical Information

Form: vivid color, liquid

Odor: hydrocarbons

Odor Threshold: No data

pH: Not applicable

Initial boiling point/ boiling point range: Representative Value 157-213C/315-415 degrees Fahrenheit

Melting point/coagulating point: No data

Flash point: Representatives • 43°C / 109 degrees Fahrenheit(IP 170)

Explosion Limit: 0.6-6%(V)

Spontaneous Combustion Temperature: No data

Combustibility(solid, gas): No data

Vapor Pressure: No data

Specific Gravity: No data

Density. No data

Solubility in water: No data

Solubility in other solvents: No data

n-octanol/water : No data  
partition coefficient (log pow)

Decomposition stable under normal circumstance

Coefficient of Kinematic Viscosity: No data

Viscosity: No data

Vapor Density: No data

Vapor Rate: No data

## 10. Stability and Reactivity

Chemical Stability: Stable under normal circumstance

Conditions to Avoid: heat, spark, fire, and other sources of ignition

Dangerous Mixture: Strong Oxidants

Dangerous Biodegradability:

Pyrolysis depends on a situation. Carbon monoxide, carbon dioxide, and levitating solid which contains organic mixture, liquid, gas, and other complex mixture will be released when this product is thermally decomposed or oxidant decomposed.

Possibility of Hazardous Toxic Reaction: No data

Sensitization against electrostatic discharge: No data

## 11. Toxicological Information

Evaluation Criteria: This information is based on product test, the same type of product, and composition ingredients.

High Possibility Exposure Route: Exposure can be done by inhalation, ingestion, and eye/skin contact.

Acute Oral Toxicity: toxicity is relatively low. LD50>5000 mg/kg rats

Acute Skin Toxicity: Toxicity is relatively low: LD50>5000 mg/kg rats

Acute Inhalation Toxicity: Larger than saturated vapor density. >LC50 High density leads to headache, dizziness, and restraining central nervous system.

Skin corrosiveness/stimulation: slightly stimulates. Prolonged/repetitive exposure might remove grease from skin.

Stimulation on Eye: Almost none

Stimulation on Respiratory system: almost no stimulation

Sensitization on Respiratory system/skin: not a skin sensitizing substance

Toxicity on Respiratory system: When ingesting or vomiting, it might develop fatal pneumonia caused by chemical substance. Repetitive Intake toxicity. Kidney: what

caused to male rate is not related to humans.

Mutagenicity: NOT mutagenic

Carcinogenicity: Repetitive exposure brought about skin tumor to tested animals.

Reproductive/Developmental toxicity: No developmental toxicity. It will NOT decrease birth rate.

## **12. Environmental Information**

Evaluation Criteria : Ecological toxicity about this product is incomplete. The information below is based on partial information of this composition, as well as reproductive toxicity on similar products.

Acute Toxicity.

Fish: Not toxic

Marine invertebrates : Not toxic

Algae: Not toxic

Microorganism: Not toxic

Mobility: If it is permeated into soil, more than 1 kind has high mobility, and it might possibly pollute sewer. It floats in the water

Degradability/Persistence: easily biodegradable . rapidly oxidized by photochemical reaction.

Reproductive Accumulation: It contains potential degradability.

Other negative effects: This product is less likely to be harmful for sea creatures since it decreases extremely rapidly from solvents.

## **13. Disposal Considerations**

Disposing the Content: It is preferred to reuse or recycle. It is user's responsibility to correctly judge the physical statement of this product and follow appropriate disposal procedure. DO NOT drain this product into drains or sewers. DO NOT pollute soil and water by its waste.

Disposing Containers: DO NOT leave water in containers. Dry them in safe area. Keep away from fire. The residual is explosive. DO NOT cut, mend, or peel dirty steel drum. Entrust disposal to industrial waste disposal contractor.

Related Laws: Follow local/federal laws and regulations. Local regulations are sometimes more strict than the national one, but must be followed.



#### **14. Transport Information**

National Regulation:

The Fire Service Act: the fourth group ignitable liquid, the second oil group

Marine transport

Ship Safety Law: High flash point ignitable liquid

International Maritime Dangerous Goods

Identification Number: UN 1223

Adequate shipping name: KEROSENE

Class/group: 3

Packing group: III

Marine Pollutant Substance: Not Applicable

International Air Transport Association

UN Number: 1223

Adequate shipping name: Kerosene

Class/group: 3

Packing group: III

#### **15. Regulatory Information**

Regulatory Information is not inclusive. Other regulations might be adapted.

National Regulations:

The Fire Service Act: the fourth group ignitable liquid, the second oil group

Industrial Safety and Health Law Article 57: object to note

Marine Pollutant Prevention Law: Z-group substance

Ship Safety Law: High Flash point ignitable liquid

#### **16. Other Information**

MSDS revision and restrictions: Perpendicular lines in outside border indicates the revised portion. Industrial solvents.

MSDS distribution: All users must be able to inspect this MSDS.

Disclaimer: The information in this MSDS is based on our current knowledge, and its purpose is to explain healthy, safe, and environmental-friendly use of this product. Thus, it does NOT guarantee any special characteristics of this product.