

SAFETY DATA SHEET

1. Identification of the substance or mixture and of the supplier

GHS Product identifier: คาโอ ไฟท์เนอร์ อีเอฟ-51บีที
KAO LIGHTNER EF-51BT

Other means of identification
SDS number: A0011006

Recommended use of the chemical and restrictions on use

Recommended use: Not available.
Recommended restrictions: Not known.

Supplier's details

Manufacturer

Company Name: Kao Industrial (Thailand) Co.,Ltd.
Address: O-NES Tower, 14th floor, 6, Soi Sukhumvit 6,
Klongtoey Sub-district, Klongtoey District, Bangkok 10110, Thailand
Telephone: +662-655-4433
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Contact division: Chemical Business
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Emergency telephone number: 66-2-655-4433

2. Hazard(s) identification

GHS classification

Health Hazards

Acute toxicity (Oral)	Category 4
Acute toxicity (Dermal)	Category 3
Acute toxicity (Inhalation - vapor)	Category 3
Acute toxicity (Inhalation - dust and mist)	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Carcinogenicity	Category 2
Specific Target Organ Toxicity - Single Exposure	Category 3 (Respiratory tract irritation.)
Specific Target Organ Toxicity - Repeated Exposure	Category 2 (Respiratory system, nasal tissue)

Unknown toxicity - Health

Acute toxicity, oral	34.57 %
Acute toxicity, dermal	34.57 %
Acute toxicity, inhalation, dust or mist	37.98 %

Label Elements

Pictograms:



Signal Word:

Danger

Hazard Statement:

Toxic in contact with skin or if inhaled.
Harmful if swallowed or if inhaled.
Causes skin irritation.
Causes serious eye irritation.
Suspected of causing cancer.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not mix with hardening agents directly. May cause exothermic reaction/boiling violently and gush from a container.

Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. 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 ON SKIN: Wash with plenty of soap and water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. IF exposed or concerned: Get medical advice/attention.

Storage:

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal:

Passed to a licensed waste contractor.

Other hazards which do not result in GHS classification:

None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Furfuryl alcohol		98-00-0	40 - 50%
Aryl carboxylic acid potassium salt		582-25-2	
Urea		57-13-6	
Furfural		98-01-1	0.1 - 0.7%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The exact concentration has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

Inhalation:

Call a POISON CENTER or doctor/ physician. Remove person to fresh air and keep comfortable for breathing.

Skin Contact:

Gently wash with plenty of soap and water. If skin irritation occurs, get medical advice/attention. Take off contaminated clothing and wash before re-use. Call a POISON CENTER/doctor if you feel unwell.

Eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms persist.

Ingestion:

Rinse mouth. Call a POISON CENTER/doctor if you feel unwell.

Personal Protection for First-aid Responders:

No data available.

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

No data available.

Hazards:

No data available.

Indication of immediate medical attention and special treatment needed**Treatment:**

Get medical attention if symptoms occur.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media**Suitable extinguishing media:**

Powder, alcohol-resistant foam, water spray, carbon dioxide, sand

Unsuitable extinguishing media:

No data available.

Special hazards arising from the substance or mixture:

Produce irritating or toxic gases in a fire.

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures:

Keep away from sources of ignition and use appropriate extinguishing media. Fight fire from upwind position if possible.

Special protective equipment for fire-fighters:

Use goggles in combination with dust mask, and other protections as appropriate to situation. Risk of producing harmful gases such as carbon monoxide and nitrogen oxides. Avoid inhalation of smoke or gases.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Use goggles and protective gloves. Large spills : Remove person to safety. Ensure adequate ventilation.

Accidental release measures:

No data available.

Methods and material for containment and cleaning up:

Small spills: Absorb spills with sand, inert absorbent, waste cloth or sawdust. Then wipe up remainder in waste cloth.
 Large spills: Dike spills and dispose of in safe area.

Environmental Precautions:

Do not discharge into the drains, surface waters or ground water directly.

7. Handling and storage

Handling

Technical measures:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Local/Total ventilation:

Use local exhaust ventilation.

Safe handling advice:

Use an adequate ventilation. Wash thoroughly after handling. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using the product. Avoid contact with acids.

Contact avoidance measures:

No data available.

Storage

Safe storage conditions:

Keep container tightly closed. Store in a well-ventilated place. Store locked up. Do not store with acids.

Safe packaging materials:

No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
Furfuryl alcohol	TWA	50 ppm		TH OEL (08 2017)
Furfural	TWA	5 ppm		TH OEL (08 2017)
Furfuryl alcohol	TWA	0.2 ppm		ACGIH (03 2017)
Aryl carboxylic acid potassium salt - Inhalable fraction. - as benzoate	TWA		2.5 mg/m ³	ACGIH (01 2022)
Furfural	TWA	0.2 ppm		ACGIH (03 2017)

Please refer to the latest edition of the appropriate source text and consult an industrial hygienist or similar professional, or local agencies, for further information.

Appropriate Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use local exhaust ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection:	Safety glasses
Hand Protection:	Gloves (solvent-resistant)
Other:	Solvent-resistant protective clothing
Respiratory Protection:	Use chemical cartridge respirator for organic solvents, as appropriate to situation.
Hygiene measures:	No data available.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state:	Liquid
Form:	Liquid
Color:	Dark brown
Odor:	Furfuryl alcohol-like odour
Odor Threshold:	No data available.
Freezing point:	No data available.
Boiling Point:	No data available.
Flammability:	No data available.
Upper/lower limit on flammability or explosive limits	
Explosive limit - upper:	No data available.
Explosive limit - lower:	No data available.

Flash Point:	Not detected Method: Tag closed cup
Autoignition Temperature:	No data available.
Decomposition Temperature:	No data available.
pH:	8 Method: 50% aqueous solution
Viscosity	
Dynamic viscosity:	No data available.
Kinematic viscosity:	No data available.
Flow Time:	No data available.
Solubility(ies)	
Solubility in Water:	A part of component is insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Vapor pressure:	No data available.
Relative density:	No data available.
Density:	1.180 g/ml (25 °C/77 °F)
Relative vapor density:	No data available.
Particle characteristics	
Particle Size:	No data available.
Particle Size Distribution:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Stable in general.
Possibility of hazardous reactions:	Violent evolution of heat by contact with acids(furan binder).
Conditions to avoid:	Avoid contact with strong acids.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	No data available.

11. Toxicological information

Acute toxicity (list all possible routes of exposure)

Oral Product:	ATEmix: 352 mg/kg
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Dermal Product:	ATEmix 747 mg/kg
Inhalation Product:	Vapour: ATEmix2.15 mg/l Dust and mist: ATEmix1.56 mg/l
Skin Corrosion/Irritation Product:	No data available.
Components:	
Furfuryl alcohol	Category 2: (84)
Aryl carboxylic acid potassium salt	Category 2: (88)
Furfural	Category 2: (87)
Serious Eye Damage/Eye Irritation Product:	No data available.
Components:	
Furfuryl alcohol	Category 2A: (84)
Aryl carboxylic acid potassium salt	Category 1: (88)
Urea	Category 2B: (88)
Furfural	Category 2: (87)
Respiratory or Skin Sensitization Product:	Skin: Classification not possible due to insufficient data. Respiratory: Classification not possible due to insufficient data.
Carcinogenicity Product:	No data available.
Components:	
Furfuryl alcohol	Category 2: (84)
Furfural	Category 2: (87)
IARC:	
Furfuryl alcohol	Group 2B. Possibly carcinogenic to humans.
Germ Cell Mutagenicity	
In vitro Product:	Classification not possible due to insufficient data.
In vivo Product:	Classification not possible due to insufficient data.
Reproductive toxicity Product:	Classification not possible due to insufficient data.
Specific Target Organ Toxicity - Single Exposure Product:	No data available.

Components:

Furfuryl alcohol
 Furfural

Category 3: respiratory tract irritant: (84)
 Category 3: respiratory tract irritant: (87)

Specific Target Organ Toxicity - Repeated Exposure

Product:

No data available.

Components:

Furfuryl alcohol

Category 2: Respiratory system, nasal tissue: (84)

Aspiration Hazard

Product:

Classification not possible due to insufficient data.

Other effects:

No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product:

Classification not possible due to insufficient data.

Aquatic Invertebrates

Product:

Classification not possible due to insufficient data.

Toxicity to Aquatic Plants

Product:

No data available.

Components:

Furfural

Category 3: (88)

Chronic hazards to the aquatic environment

Fish

Product:

Classification not possible due to insufficient data.

Aquatic Invertebrates

Product:

Classification not possible due to insufficient data.

Components:

Furfural

Category 3: (88)

Persistence and Degradability

Biodegradation

Product:

No data available.

BOD/COD Ratio

Product:

No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil: No data available.

Other adverse effects: No data available.

13. Disposal considerations

Disposal methods: Review "HANDLING AND STORAGE (Section 7)". Passed to a licensed waste contractor. Incinerate with little portions. Risk of producing harmful gases such as carbon monoxide and nitrogen oxides.

Contaminated Packaging: No data available.

14. Transport information

IATA

UN Number: UN 2874
 UN Proper Shipping Name: Furfuryl alcohol
 Transport Hazard Class(es):
 Class: 6.1
 Label(s): 6.1
 Packing Group: III
 Excepted quantity: E1
 Environmentally Hazardous: No
 Marine Pollutant: No
 Special precautions for user: Not Regulated
 Other information
 Passenger and cargo aircraft: Allowed. 655
 Cargo aircraft only: Allowed. 663

IMDG

UN Number: UN 2874
 UN Proper Shipping Name: FURFURYL ALCOHOL
 Transport Hazard Class(es):
 Class: 6.1
 Label(s): 6.1
 EmS No.: F-A, S-A
 Packing Group: III
 Limited quantity: 5.00L
 Excepted quantity: E1
 Environmentally Hazardous: No
 Marine Pollutant: No
 Special precautions for user: Not Regulated

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
 Not applicable for product as supplied.

National Regulations

Domestic Standard: In compliance with domestic law.
Emergency Response Guide Number: 154

15. Regulatory information

Safety, health and environmental regulations specific for the product in question

Thailand. Reportable Hazardous Substances (Notification of Ministry of Industry Re: Bases respecting report of quantity of hazardous materials under Department of Industrial Works, B.E. 2547)

Not Regulated

Thailand. List of Hazardous Substances (Notification of Ministry of Industry Re: List of Hazardous Substances B.E. 2556, Annex: Schedules 1 - 6)

Furfural

Inventory Status:

US TSCA Inventory:	Not in compliance with the inventory
Canada DSL Inventory List:	Not in compliance with the inventory
Australia AICS:	Not in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	Not in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
Japan ISHL Listing:	On or in compliance with the inventory
Philippines PICCS:	On or in compliance with the inventory
China Inv. Existing Chemical Substances:	Not in compliance with the inventory
REACH (EU):	Contact us for information
Taiwan Chemical Substance Inventory:	Not in compliance with the inventory

16. Other information, including date of preparation or last revision

Issue Date:	28.09.2022
Version #:	2.0
Source of information:	No data available.
Further Information:	No data available.

Disclaimer:

To the best of the manufacturer's knowledge, the information contained herein is accurate. However, neither the manufacturer, nor any of its affiliates, make any representations or warranties (expressed or implied), nor assumes any liability (including liability for any direct, incidental, consequential, or other damages) with respect to the accuracy or completeness of the information contained herein. Such information may be (without limitation) invalid if the specified material is used in combination with another, in a particular process, or under unusual conditions. Determination of suitability of any material for any given purpose is the sole responsibility of the user who assumes all risk and responsibility therefore. All materials may present unknown hazards and should be used with appropriate caution. The manufacturer cannot and does not guarantee that the hazards described herein are the only ones that exist. In the case of the product for fragrance, it's in accordance with the latest standard of IFRA within ordinary use. Contact with the supplier for detail information.

Reference:

- (84): IFRA-IOFI LABELING MANUAL
- (87): EU CLP Regulation Annex VI
- (88): ECHA-REACH Registered Substances Database