

SAFETY DATA SHEET

1. Product and company identification

Name of chemical (Product name): FRUITATE

Product No.: B0007167

Manufacturer/Importer/Distributor Information

Information on domestic manufacturer

Company Name: Kao Corporation
 Address: 1-3,Bunka 2-chome,Sumida-ku,Tokyo 131-8501 Japan
 Telephone: +81-3-5630-7700
 Fax: +81-3-5630-7889
 Contact division: Chemical Business
 E-mail: chemical@kao.co.jp

Emergency telephone number: 81-3-5630-7700

2. Hazard(s) identification

GHS classification

Health Hazards

Skin Corrosion/Irritation Category 2

Unknown toxicity - Health

Acute toxicity, inhalation, dust or mist 100 %

Environmental Hazards

Acute hazards to the aquatic environment Category 2

Chronic hazards to the aquatic environment Category 2

Unknown toxicity - Environment

Acute hazards to the aquatic environment 0 %

Chronic hazards to the aquatic environment 0 %

Label Elements

Pictograms:



Signal Word: Warning

Hazard Statement: Causes skin irritation.
 Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention: Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. Call a POISON CENTER/doctor if you feel unwell. Collect spillage.

Storage: -

Disposal: Passed to a licensed waste contractor.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Substances

Chemical name or generic name	CAS number	ISHL	ENCS	Content in percent (%)
Ethyl tricyclo[5.2.1.0-2,6]decane-2-carboxylate (endo)	80623-07-0	Yes	Yes	
Ethyl tricyclo[5.2.1.0-2,6]decane-2-carboxylate(exo)	80657-64-3	Yes	Yes	

4. First-aid measures

Description of first aid measures

Inhalation: 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. Flush skin with running water. Take off contaminated clothing and wash before re-use.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.

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, carbon dioxide, sand

Unsuitable extinguishing media: No data available.

Special hazards arising from the substance or mixture: No data available.

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. Do not flow the materials causing adverse effects into the environment with effluent fire extinguishing agents.

Special protective equipment for fire-fighters: Use goggles in combination with dust mask, and other protections as appropriate to situation.

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.

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: Avoid release to the environment.

Prevention of secondary hazards: Keep away from sources of ignition and prepare extinguishing media.

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 an adequate ventilation.

Safe handling advice: Keep away from source of ignition. Use an adequate ventilation. Wash thoroughly after handling. Use personal protective equipment as required.

Contact avoidance measures: No data available.

Storage

Safe storage conditions: Keep container tightly closed. Store in a well-ventilated place. Keep away from source of ignition.

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Product: None known.

Individual protection measures, such as personal protective equipment

Eye/face protection: Safety glasses

Hand Protection: Material: Rubber gloves

Skin and Body Protection: Full-body suit

Respiratory Protection: Use 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: Colorless clear

Odor: Characteristic odour

Odor Threshold: No data available.

Freezing point: < 68 °F/20 °C

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:	240.8 °F/116.0 °C (Cleveland open cup)
Self Ignition Temperature:	482.0 °F/250.0 °C
Decomposition Temperature:	No data available.
pH:	No data available.

Viscosity

Dynamic viscosity:	No data available.
Kinematic viscosity:	No data available.
Flow Time:	No data available.

Solubility(ies)

Solubility in Water:	The product has poor water-solubility.
Solubility (other):	Soluble in ethyl alcohol

Partition coefficient (n-octanol/water): No data available.

Vapor pressure: No data available.

Relative density: No data available.

Density: 1.043 g/ml (68.0 °F/20.0 °C)

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:	No data available.
Conditions to avoid:	No data available.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	No data available.

11. Toxicological information

Acute toxicity (list all possible routes of exposure)

Oral

Product: LD 50 (Rat): > 5.0 g/kg
 Not classified based on available data.

Dermal

Product: LD 50 (Rat) > 2.0 g/kg Not classified
 Not classified based on available data.

Inhalation

Product: Dusts, mists and fumes: Classification not possible due to insufficient data.
 Vapour: No data available.
 Not classified based on available data of component(s).

Skin Corrosion/Irritation

Product: No data available.

Components:

Ethyl tricyclo[5.2.1.0-
 2,6]decane-2-carboxylate(exo) Category 2: (87)

Serious Eye Damage/Eye Irritation

Product: OECD TG405 (Rabbit): Not classified undiluted
 Not classified based on available data.

Respiratory or Skin Sensitization

Product: Skin sensitization, GPMT Skin: (Guinea Pig): Negative
 Skin sensitization, Buehler Skin: (Guinea Pig): Negative
 Skin: Not classified based on available data.
 Respiratory: Classification not possible due to insufficient data.

Carcinogenicity

Product: Classification not possible due to insufficient data.

IARC:

No carcinogenic components identified

ACGIH:

No carcinogens present or none present in regulated quantities

NTP:

No carcinogenic components identified

JSOH:

No carcinogenic components identified

EU

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: Ames test (TA98, TA100, TA1535, TA1537, TA1538): Negative
 Ames test (TA98, TA100, TA1535, TA1537, TA1538, WP2uvrA): Negative
 Chromosome Aberration test: S9(+) Negative, S9(-) Positive
 Micronucleus test: Negative
 Unscheduled DNA synthesis test: Negative
 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: Classification not possible due to insufficient data.

Specific Target Organ Toxicity - Repeated Exposure

Product: Not classified Rat, 28 days repeated dose oral toxicity test (OECD TG407) : NOTEL (no observed toxic effect level) = 1,000 mg/kg/day
 Not classified based on available data.

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: LC 50 (Rainbow Trout, 96 h): 5.1 mg/l

Aquatic Invertebrates

Product: EC 50 (Daphnia, 48 h): 5.9 mg/l

Toxicity to Aquatic Plants

Product: ErC50 (Alga, 72 h): 6.2 mg/l (OECD TG201)

Chronic hazards to the aquatic environment

Fish

Product: No data available.

Aquatic Invertebrates

Product: NOEC (Daphnia, 21 d): 0.2 mg/l

Toxicity to Aquatic Plants

Product: No data available.

Components:

Ethyl tricyclo[5.2.1.0-2,6]decane-2-carboxylate (endo) Category 2: (84)
 Ethyl tricyclo[5.2.1.0-2,6]decane-2-carboxylate(exo) Category 2: (87)

Persistence and Degradability

Biodegradation

Product: 54 % (28 d, OECD TG301D)

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: Bioconcentration Factor (BCF): 11 - 137 Low Bioconcentration

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Mobility in soil:

No data available.

Hazardous to the ozone layer:

Not Regulated

Further Information:

No data available.

13. Disposal considerations

Disposal methods:

Review "HANDLING AND STORAGE (Section 7)". Passed to a licensed waste contractor.

Contaminated Packaging:

No data available.

14. Transport information

International regulations

IMDG

UN Number: UN 3082
 UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Ethyl tricyclo[5.2.1.02,6]decane-2-carboxylate)
 Transport Hazard Class(es)
 Class: 9
 Label(s): 9
 EmS No.: F-A, S-F
 Packing Group: III
 Limited quantity: 5.00L
 Excepted quantity: E1
 Environmentally Hazardous: Yes
 Marine Pollutant: Yes

Special precautions for user:	Not Regulated
IATA	
UN Number:	UN 3082
UN Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s. (Ethyl tricyclo[5.2.1.02,6]decane-2-carboxylate)
Transport Hazard Class(es):	
Class:	9
Label(s):	9MI (Miscellaneous)
Packing Group:	III
Excepted quantity	E1
Environmentally Hazardous:	Yes
Marine Pollutant:	No
Special precautions for user:	Not Regulated
Other information	
Passenger and cargo aircraft:	Allowed. 964
Cargo aircraft only:	Allowed. 964
UN Proper Shipping Name (JP):	環境有害物質(液体)(Ethyl tricyclo[5.2.1.02,6]decane-2-carboxylate)

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: 171

15. Regulatory information

Industrial Safety and Health Law

Not Regulated

Poisonous and Deleterious Substances Control Act

Not Regulated

Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

Not Regulated

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

Until March 31st, 2023

Not Regulated

From April 1st, 2023

Not Regulated

Fire Service Act:

Group 4: Flammable liquids, Type 3 petroleums, Water insoluble liquid, Designated Quantity (2000 litre)
 Hazardous rank III

Ship Safety Law, Dangerous Goods Marine Transport and Storage Rule:

Miscellaneous dangerous substances and articles

Air Law, Enforcement Rule:

Miscellaneous dangerous substances and articles

Explosives Control Act:

Not Regulated

High Pressure Gas Safety Act:

Not Regulated

Act on Prevention of Marine Pollution and Maritime Disaster:

Pack transport, Marine pollutant (P)

Export Trade Control Order

Not Regulated

Inventory Status:

US TSCA Inventory:	On or in compliance with the inventory
Canada DSL Inventory List:	Not in compliance with the inventory
Australia AICS:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	Contact us for information
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:	On or in compliance with the inventory
REACH (EU):	Registered
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory

16. Other Information

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:

- Hazard communication of chemicals based on GHS -- Labelling and Safety Data Sheet (SDS) (JIS Z 7253 : 2019)
- International Chemical Safety Cards (ICSC) (Compiler's Guide) (1994)

- GHS guideline -- Labelling and Safety Data Sheet (2019) Japan Chemical Industry Association
(84): IFRA-IOFI LABELING MANUAL
(87): EU CLP Regulation Annex VI