



Kao Corporation, S.A.

Member of KAO CHEMICALS EUROPE

SAFETY DATA SHEET

Conforms to 91/155/EEC - 2001/58/EC

FRUITATE

1. Identification of the substance/preparation and of the company/undertaking

Product name : FRUITATE
Code : 3009035
Chemical product name : Ethyl tricyclo [5.2.1.0^{2,6}] decan-2-carboxylate.
Manufacturer : Kao Corporation
1-3, Bunka 2-Chome, Sumida-ku, Tokyo 131-8501 - JAPAN
Tel. +81 3 5630 7700 . Fax +81 3 5630 7889
Supplier : Kao Corporation, S.A.
Puig dels Tudons, 10 - 08210 BARBERÀ DEL VALLÈS (Barcelona)
- SPAIN
Telf. 937399 300. Fax 937399 333
Emergency telephone number : +81-3-5630-7700
Material uses : Perfume oil mixtures and blends consisting of products ready for use in finished perfume bases.

2. Composition/information on ingredients

Substance/preparation : Substance

Hazardous ingredients :

Chemical name*	CAS No.	%	EC number	Classification
Ethyl tricyclo [5.2.1.0 ^{2,6}] decan-2-carboxylate.	80657-64-3	25 - 100		Xi; R38 N; R51/53
See section 16 for the full text of the R Phrases declared above				

Following European Directives and National Regulations, only the dangerous ingredients are disclosed in the above table.

* Occupational Exposure Limit(s), if available, are listed in section 8

3. Hazards identification

The substance is classified as dangerous according to Directive 67/548/EEC and its amendments.

Classification : Xi; R38
N; R51/53
Human health hazards : Irritating to skin.
Environmental hazards : Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

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

4. First aid measures

First aid measures

- Inhalation** : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
- Ingestion** : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- Eye contact** : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

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

5. Fire-fighting measures

- Extinguishing media** : Use an extinguishing agent suitable for surrounding fires.
- Special exposure hazards** : No specific hazard.
- Fire-fighting procedures** : This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : These products are carbon oxides (CO, CO₂).
- Special protective equipment for fire-fighters** : Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8).
- Environmental precautions and clean-up methods** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. Handling and storage

- Handling** : Avoid contact with skin and clothing. Avoid contact of spilled material and runoff with soil and surface waterways. Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

Packaging materials

- Recommended** : Use original container.

8. Exposure controls/personal protection

Exposure controls

- Occupational exposure controls** : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.
- 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.
- Hand protection** : Chemical-resistant, impervious gloves or gauntlets complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
>8 hour(s) (breakthrough time): disposable vinyl

FRUITATE

- Eye 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 or dusts.
Recommended: splash goggles, safety glasses with side shields
- Remark** : The penetration-time of the recommended gloves depend not only on the material. Also other factors may have influence on the penetration-time, as the thickness of them or the specific use or conditions (temperature). In any case, certificate materials (for example following EN 374) should be selected. Please ask your supplier, if the gloves are suitable for the intended use.
- Skin 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.
Body: Recommended: lab coat, overall
Feet: Recommended: neoprene

9. Physical and chemical properties

Appearance

- Physical state** (20°C) : Liquid.
- Color** : Clear.
- Odor** : Fruity.
- Boiling point** : 254.7 to 261.9 °C ((at 760 mmHg))
- Melting point** : <0 °C
- Flash point** : Closed cup: 104°C (219.2°F). (P.M.C.C.) Open cup: 116°C (240.8°F) (COC).
- Vapor pressure** : 0.01 mmHg (25 °C)
- Density** : 1.034 to 1.051 g/cm³ (20 °C) (Automatic densitometer)
- Solubility** : Soluble in methanol.
Very slightly soluble in cold water.
- Dispersion properties** : See solubility in water, methanol.
- Viscosity (Kinetic)** : 0 cSt

10. Stability and reactivity

- Stability** : The product is stable.
- Materials to avoid** : Extremely reactive or incompatible with oxidizing agents.
- Hazardous decomposition products** : These products are carbon oxides (CO, CO₂).
- Other Information** : When burning can generate carbon dioxide and carbon monoxide.

11. Toxicological information

Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : Irritating to skin.
- Contact sensitisation** : No specific information is available in our database regarding the other toxic effects of this material for humans.
- Eye contact** : No known significant effects or critical hazards.

Acute toxicity

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Ethyl tricyclo [5.2.1.0 ^{2,6}]	LD50	>5000 mg/kg	Oral	Rat
decan-2-carboxylate.	LD50	>2000 mg/kg	Dermal	Rabbit

- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Inhalation** : No known significant effects or critical hazards.

FRUITATE

- Ingestion** : No known significant effects or critical hazards.
Skin : No known significant effects or critical hazards.

12. Ecological information

<u>Ingredient name</u>	<u>Persistence/degradability</u>						<u>Bioaccumulative potential</u>		
	BOD ₅	COD	ThOD	Aquatic half-life	Photolysis	Biodegradability	LogP _{ow}	BCF	Potential
Ethyl tricyclo [5.2.1.0 ^{2,6}] decan-2-carboxylate.	540000 ppm								

- Other adverse effects** : Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
- Additional information** : The test substance cannot be termed as readily biodegradable. Prevent contamination of soil, ground and surface water.

13. Disposal considerations

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. 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.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste

14. Transport informationInternational transport regulations

Regulatory Information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
ADR/RID Class	Not regulated.	-	-			Not available.
IMDG Class	Not regulated.	-	-			-
IATA-DGR Class	Not regulated.	-	-			Not available.

15. Regulatory informationEU Regulations

Hazard symbol(s) :



Irritant, Dangerous for the environment

Risk Phrases :

- R38- Irritating to skin.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases :

- S24- Avoid contact with skin.
S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

Contains :

Product use :

- Classification and labeling have been performed according to EU directives 67/548/EEC, 1999/45/EC including amendments and the intended use.
- Industrial applications.

Other information :

- Not available.

Other EU regulations

FRUITATE

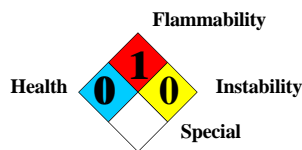
Additional warning phrases : Not applicable.
Restriction to market directive : Not applicable.
EC Statistical classification (Tariff Code) : 2916200090

Germany

Hazardous incident ordinance : No.
Ordinance on combustible liquids : Class: Omitted
Technical instruction on air quality control : Not available.
Hazard class for water : 2

U.S.A.

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



16. Other information

Indicates information that has changed from previously issued version.

Full text of R phrases referred to in Sections 2 and 3 : R38- Irritating to skin.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Full text of classifications referred to in Sections 2 and 3 : Xi - Irritant
N - Dangerous for the environment.
Key data sources : Not available.
Revision comments : Not available.

History

Product code : 3009035
Date of printing : 14/03/2005
Date of issue : 2/12/2004
Date of previous issue : 01/12/2004
Version : 5
Form : KCE SDS F EU

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.