

# Kao Corporation, S.A.

Member of KAO CHEMICALS EUROPE

## SAFETY DATA SHEET

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



### GAMMA UNDECALACTONE

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

Product name	: GAMMA UNDECALACTONE
Code	: 3009084
Chemical product name	: 2(3h)-furanone, 5-heptyldihydro-
Manufacturer	: Kao Corporation, S.A. Puig dels Tudons, 10 - 08210 BARBERÀ DEL VALLÈS (Barcelona) - SPAIN Telf. 937399 300. Fax 937399 333
Supplier	: Kao Corporation, S.A. Puig dels Tudons, 10 - 08210 BARBERÀ DEL VALLÈS (Barcelona) - SPAIN Telf. 937399 300. Fax 937399 333
Emergency telephone number	: (+34) 93 739 93 00
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

To present knowledge of the supplier, this product does not contain any hazardous ingredients in accordance to EU regulations or National regulations.

#### 3. Hazards identification

The substance is not classified as dangerous according to Directive 67/548/EEC and its amendments.

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. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
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.
- Hazardous thermal decomposition products** : These products are carbon oxides (CO, CO<sub>2</sub>).
- 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** : 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
- 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
- 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** : Not available.
- Odor** : Peach., Apricot
- Boiling point** : 297 °C (At 760 mmHg)
- Dropping Point** : 0.001 °C

## GAMMA UNDECALACTONE

Flash point	: Closed cup: >100°C (212°F). (P.M.C.C.) Open cup: 160°C (320°F) (COC).
Vapor pressure	: 0.001 mmHg (25 °C) ([IND])
Density	: 0.943 g/cm <sup>3</sup> (20 °C) (Automatic densitometer)
Specific Gravity	: 0.938 to 0.948 (20/20)
Refractive index	: 1.445 to 1.455 (20 °C)
Solubility	: Easily soluble in methanol. Insoluble in cold water.
Dispersion properties	: See solubility in water, methanol.
Viscosity ( Kinetik )	: 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, CO <sub>2</sub> ).
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	: No known significant effects or critical hazards.
Contact sensitisation	: Non-sensitizer for skin.
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>
2(3h)-furanone, 5-heptyldihydro-	LD50	18500 mg/kg	Oral	Rat

**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.

**Other Information** :

### Over-exposure signs/symptoms

Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin	: No known significant effects or critical hazards.

## 12. Ecological information

### Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
2(3h)-furanone, 5-heptyldihydro-	Daphnia magna (EC50)	48 hour(s)	17 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	569 mg/l
	Pimephales promelas (LC50)	96 hour(s)	1490 mg/l
<b>Additional information</b>	: Intoxication	Mortality	Mortality

**Other adverse effects** : No known significant effects or critical hazards.

**Additional information** : 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** : To present knowledge of the supplier, this product is not regarded as hazardous waste as defined by EU Directive 91/689/EC.

### 14. Transport information

**International 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.	-	-			<u>Quantity limitation - Passenger Aircraft</u> kg

### 15. Regulatory information

**EU Regulations**

- Risk Phrases** : This product is not classified according to the EU regulations.
- Safety Phrases** : Not applicable.
- 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 applicable.

**Other EU regulations**

- Additional warning phrases** : Not applicable.
- Restriction to market directive** : Not applicable.
- EC Statistical classification (Tariff Code)** : 2932 29

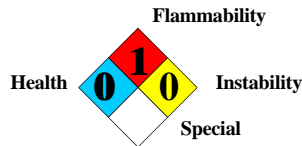
**Germany**

- Hazardous incident ordinance** : No.
- Ordinance on combustible liquids** : Class: Omitted
- Technical instruction on air quality control** : Not available.
- Hazard class for water** : When you are seeking to classify this substance as 'non hazardous for the aquatic environment', you first have to follow the 'WGK - self-classification scheme', specified in Annex 3 of the German WGK regulation (VwVwS) from 17.05.1999. The substance is non hazardous for the aquatic environment, when the total number of points, assembled during the classification process is 0, and all of the following criteria are met:  
- slightly soluble in water (< 100 mg/l for gasses and solids; < 10 mg/l for liquids);  
- no toxicity at the concentration range where the substance is water soluble (tested on at least two organisms (fish, Daphnia or algae);

- easily biodegradable when it is a liquid organic substance.

**U.S.A.**

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

**16. Other information**

Indicates information that has changed from previously issued version.

<b>Other information</b>	: These information data are based on KAO's original data and FFIDS compiled by FEMA, RIFM, FMA (1990). [SLR]: Scientific Literature Reviews on Materials in Flavor Usage, 69 vol., 1984-1974[RIFM]: Opdyke, D.L.J., Monographs on Fragrance Raw Materials.[IND]: Industry Generated Data, 1985-Physical data collected by an industry committee.
<b>Full text of R phrases referred to in Sections 2 and 3</b>	: Not applicable.
<b>Full text of classifications referred to in Sections 2 and 3</b>	: Not applicable.
<b>Key data sources</b>	: Not available.
<b>Revision comments</b>	: Not available.

**History**

<b>Product code</b>	: 3009084
<b>Date of printing</b>	: <b>14/03/2005</b>
<b>Date of issue</b>	: 21/07/2004
<b>Date of previous issue</b>	: 13/11/2003
<b>Version</b>	: 2
<b>Form</b>	: <b>KCE SDS F EU</b>

**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.*