SAFETY DATA SHEET
INTERNATIONAL FLAVORS & FRAGRANCES

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name	:	HEXADECANOLIDE
IFF Code	:	00082663
Cust. Material	:	00082663
Use of the Substance/Mixture	:	Ingredient used in Flavour and/or Fragrance preparations
Company	:	IFF Benicarló, S.L. Avda. Felipe Klein 2 12580 BENICARLÓ
Telephone	:	+34964470212
Emergency telephone number	:	+34 964 470 212

2. HAZARDS IDENTIFICATION

GHS-Classification

Skin corrosion/irritation, Category 3

GHS-Labelling

Signal word	:	Warning
Hazard statements	:	H316: Causes mild skin irritation.
Precautionary statements	:	P332 + P313: If skin irritation occurs: Get medical advice/ attention.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization	:	lactones
Molecular formula	:	C16H30O2
Molecular Weight	:	254.40 g/mol
CAS-No.	:	109-29-5

4. FIRST AID MEASURES

Inhalation	:	Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
Skin contact	:	Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
Eye contact	:	Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
Ingestion	:	Rinse mouth with water and obtain medical advice.

5. FIREFIGHTING MEASURES

Suitable extinguishing media : Carbondioxide, dry chemical, foam.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.

Environmental precautions : Keep away from drains, surface- and groundwater and soil.

Methods for cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation or exhaust. Avoid excessive inhalation of dust and vapours. Contain and recover free product. Dispose of according to the local regulations.

7. HANDLING AND STORAGE

Handling

Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.
Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

Storage

Requirements for storage areas and containers : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Verify if the substances declared in section 3 have relevant national exposure limits.

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open

sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures.
No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

a)while engineering controls and appropriate safe work practices and/or procedures are being implemented; or
b)during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
c)if normal operational workplace vapor concentration in the air is increased due to heat ;
d)during emergencies; or
e)if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material.
To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.

Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004 (Updated in 2012), the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace.
The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.
The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration >= 1.0% due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	:	solid
Colour	:	white
Odour	:	conforms to standard

Safety data

Flash point	:	> 94 °C
Ignition temperature	:	> 100 °C
Melting point	:	28.00 - 35.00 °C
Vapour pressure	:	Note: not applicable
Partition coefficient: n-octanol/water	:	log Pow: 6.650

10. STABILITY AND REACTIVITY

Conditions to avoid	:	Remarks: Direct sources of heat.
Hazardous decomposition products	:	Note: Carbon monoxide and unidentified organic compounds may be formed during combustion.
Hazardous reactions	:	Presents no significant reactivity hazard, by itself or in contact with water. Avoid contact with strong acids, alkali or oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	LD50 (rat) = > 5,000 mg/kg
Acute dermal toxicity	:	LD50 (rabbit) = > 5,000 mg/kg
Skin irritation	:	No skin irritation (closed patch test, human, 48 h) Skin irritation (, rabbit, 24 h)
Sensitisation	:	(, 0.0%) Did not cause sensitization on laboratory animals. (,human, 4.0% in petrolatum)

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

13. DISPOSAL CONSIDERATIONS

Product	:	Disposal together with normal waste is not allowed. Special disposal required according to local regulations.

Version	:	2
Revision Date	:	12.06.2013

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

IATA
Not dangerous goods

IMDG_GLOBAL
Not dangerous goods

15. REGULATORY INFORMATION

Labelling according to EC Directives67/548/EEC
Additional Info : In accordance with EC directives or respective national laws, the product does not need to be classified nor labelled.

HMIS Classification : Health hazard: 1
Flammability: 1
Physical and chemical hazards: 0

16. OTHER INFORMATION

Further information

The information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

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