

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.12.2012

Version 30

Revision: 25.11.2012

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

◊ **Product identifier**

- ◊ Trade name: **Banana flv**
- ◊ Article number: P0610347
- ◊ Registration number -
- ◊ Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- ◊ Application of the substance / the preparation Flavour/Fragrance

◊ **Details of the supplier of the safety data sheet**

- ◊ Manufacturer/Supplier:
Frey & Lau GmbH
Immenhacken 12, D-24558 Henstedt-Ulzburg
Tel:++49-4193-9953 Fax: +49-4193-9955-80
- ◊ Further information obtainable from:
Sachkundige Person Frey + Lau
info@freylau.de
- ◊ Emergency telephone number: ++49-40-54.77.99.56 WAKO

2. Hazards identification

◊ **Classification of the substance or mixture**

- ◊ Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 3 H226 Flammable liquid and vapour.

Eye Irrit. 2 H319 Causes serious eye irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- ◊ Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant

R36: Irritating to eyes.

R10-52/53: Flammable. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- ◊ Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- ◊ Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

◊ **Label elements**

- ◊ Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

- ◊ Hazard pictograms



GHS02 GHS07

- ◊ Signal word Warning

- ◊ Hazard statements

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H412 Harmful to aquatic life with long lasting effects.

Contains Eugenol, Citronellol. May produce an allergic reaction.

- ◊ Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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- ◊ **Other hazards**
- ◊ Results of PBT and vPvB assessment
- ◊ PBT: Not applicable.
- ◊ vPvB: Not applicable.

3. Composition/information on ingredients

- ◊ **Chemical characterization: Mixtures**
- ◊ **Description:** Mixture of substances listed below with nonhazardous additions.
- ◊ **Dangerous components:**

CAS: 64-17-5	Ethanol	20-24,99%
EINECS: 200-578-6	Xi R36; F R11	
	Flam. Liq. 2, H225; Eye Irrit. 2, H319	
CAS: 121-33-5	4-Hydroxy-3-Methoxybenzaldehyde	5-9,99%
EINECS: 204-465-2	Xi R36	
	Eye Irrit. 2, H319	
CAS: 123-92-2	3-Methyl butyl acetate	5-9,99%
EINECS: 204-662-3	R10-66	
	Flam. Liq. 3, H226	
CAS: 106-27-4	3-Methylbutylbutyrate	2,5-5%
EINECS: 203-380-8	R52/53	
	Flam. Liq. 3, H226; Aquatic Chronic 3, H412	
CAS: 659-70-1	Isoamyl isovalerate	2,5-5%
EINECS: 211-536-1	N R51/53	
	Aquatic Chronic 2, H411	
CAS: 110-19-0	iso-Butyl acetate	1-2,49%
EINECS: 203-745-1	F R11	
	R66	
	Flam. Liq. 2, H225	
CAS: 97-53-0	Eugenol	<1%
EINECS: 202-589-1	Xi R36; Xi R43	
	Eye Irrit. 2, H319; Skin Sens. 1B, H317	
CAS: 106-22-9	Citronellol	<1%
EINECS: 203-375-0	Xi R38; Xi R43; N R51/53	
	Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317	
- ◊ **Additional information:** For the wording of the listed risk phrases refer to section 16.

4. First aid measures

- ◊ **Description of first aid measures**
- ◊ **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- ◊ **After skin contact:** Generally the product does not irritate the skin.
- ◊ **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- ◊ **After swallowing:** If symptoms persist consult doctor.
- ◊ **Information for doctor:**
- ◊ **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- ◊ **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5. Firefighting measures

- ◊ **Extinguishing media**
- ◊ **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- ◊ **For safety reasons unsuitable extinguishing agents:** Water

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- ◊ **Special hazards arising from the substance or mixture** No further relevant information available.
- ◊ **Advice for firefighters**
- ◊ **Protective equipment:** No special measures required.

6. Accidental release measures

- ◊ **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- ◊ **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- ◊ **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Treat with 2 % sodium hydroxide solution.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- ◊ **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. Handling and storage

- ◊ **Handling:**
- ◊ **Precautions for safe handling** Prevent formation of aerosols.
- ◊ **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- ◊ **Conditions for safe storage, including any incompatibilities**
- ◊ **Storage:**
- ◊ **Requirements to be met by storerooms and receptacles:** No special requirements.
- ◊ **Information about storage in one common storage facility:** Not required.
- ◊ **Further information about storage conditions:** Keep container tightly sealed.
- ◊ **Specific end use(s)** No further relevant information available.

8. Exposure controls/personal protection

- ◊ **Additional information about design of technical facilities:** No further data; see item 7.
- ◊ **Control parameters**
- ◊ **Ingredients with limit values that require monitoring at the workplace:**
- 64-17-5 Ethanol**
TWA () 1900 mg/m³, 1000 ppm
- 123-92-2 3-Methyl butyl acetate**
TWA () Short-term value: 800 mg/m³, 150 ppm
Long-term value: 530 mg/m³, 100 ppm
- 110-19-0 iso-Butyl acetate**
TWA () Short-term value: 950 mg/m³, 200 ppm
Long-term value: 950 mg/m³, 200 ppm

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- ◊ *Additional information: The lists valid during the making were used as basis.*
- ◊ **Exposure controls**
- ◊ *Personal protective equipment:*
- ◊ *General protective and hygienic measures:*
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes.
 Avoid contact with the eyes and skin.
- ◊ *Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.*
- ◊ *Protection of hands:*
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- ◊ *Material of gloves*
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
 The multichemical-resistant glove Barrier 02-100 is recommended.
- ◊ *Penetration time of glove material*
 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- ◊ *Eye protection: Tightly sealed goggles*

9. Physical and chemical properties

- ◊ **Information on basic physical and chemical properties**
- ◊ *General Information*
- ◊ *Appearance:*

Form:	Fluid
Colour:	Yellowish
- ◊ *Odour:* Characteristic
- ◊ *Odour threshold:* Not determined.
- ◊ *pH-value at 20 °C:* 6
- ◊ *Melting point/Melting range:* Undetermined.
- ◊ *Flash point:* 26 °C
- ◊ *Flammability (solid, gaseous):* Not applicable.
- ◊ *Ignition temperature:*

Decomposition temperature:	Not determined.
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- ◊ *Self-igniting:* Not determined.
- ◊ *Danger of explosion:* Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
- ◊ *Explosion limits:*

Lower:	Not determined.
Upper:	Not determined.
- ◊ *Density at 20 °C:* 0,95 g/cm³
- ◊ *Relative density* Not determined.
- ◊ *Vapour density* Not determined.
- ◊ *Evaporation rate* Not determined.
- ◊ *Solubility in / Miscibility with water:* Soluble.
- ◊ *Partition coefficient (n-octanol/water):* Not determined.

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Trade name: **Banana flv**◊ **Other information**

No further relevant information available.

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10. Stability and reactivity

- ◊ **Reactivity**
- ◊ **Chemical stability**
- ◊ **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- ◊ **Possibility of hazardous reactions** No dangerous reactions known.
- ◊ **Conditions to avoid** No further relevant information available.
- ◊ **Incompatible materials:** No further relevant information available.
- ◊ **Hazardous decomposition products:** No dangerous decomposition products known.

11. Toxicological information

- ◊ **Information on toxicological effects**
- ◊ **Acute toxicity:**
- ◊ **Primary irritant effect:**
- ◊ **on the skin:** No irritant effect.
- ◊ **on the eye:** Irritating effect.
- ◊ **Sensitization:** No sensitizing effects known.
- ◊ **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.
Irritant

12. Ecological information

- ◊ **Toxicity**
- ◊ **Aquatic toxicity:** No further relevant information available.
- ◊ **Persistence and degradability** No further relevant information available.
- ◊ **Behaviour in environmental systems:**
- ◊ **Bioaccumulative potential** No further relevant information available.
- ◊ **Mobility in soil** No further relevant information available.
- ◊ **Ecotoxicological effects:**
- ◊ **Remark:** Harmful to fish
- ◊ **Additional ecological information:**
- ◊ **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms
- ◊ **Results of PBT and vPvB assessment**
- ◊ **PBT:** Not applicable.
- ◊ **vPvB:** Not applicable.
- ◊ **Other adverse effects** No further relevant information available.

13. Disposal considerations

- ◊ **Waste treatment methods**
- ◊ **Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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- ◊ **Uncleaned packaging:**
- ◊ Recommendation: Disposal must be made according to official regulations.
- ◊ Recommended cleansing agents: Water, if necessary together with cleansing agents.

14. Transport information

- ◊ **UN-Number**
 - ◊ ADR, IMDG, IATA
 - ◊ **UN proper shipping name**
 - ◊ ADR
 - ◊ IMDG
 - ◊ IATA
 - ◊ **Transport hazard class(es)**
 - ◊ ADR
 - ◊ Class
 - ◊ Label
 - ◊ IMDG, IATA
 - ◊ Class
 - ◊ Label
 - ◊ **Packing group**
 - ◊ ADR, IMDG, IATA
 - ◊ **Environmental hazards:**
 - ◊ Marine pollutant:
 - ◊ **Special precautions for user**
 - ◊ Danger code (Kemler):
 - ◊ EMS Number:
 - ◊ **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
 - ◊ **Transport/Additional information:**
 - ◊ ADR
 - ◊ Limited quantities (LQ)
 - ◊ Transport category
 - ◊ Tunnel restriction code
 - ◊ **UN "Model Regulation":**
- UN1197
- UN 1197 EXTRACTS, FLAVOURING, LIQUID (ETHANOL (ETHYL ALCOHOL), ISOBUTYL ACETATE)
- EXTRACTS, FLAVOURING, LIQUID (ETHANOL (ETHYL ALCOHOL), ISOBUTYL ACETATE)
- EXTRACTS, FLAVOURING, LIQUID (ETHANOL, ISOBUTYL ACETATE)
- 3 (F1) Flammable liquids.
- 3
- 3 Flammable liquids.
- 3
- III
- No
- Warning: Flammable liquids.
- 30
- F-E,S-D
- Not applicable.
- 5L
- 3
- D/E
- UN1197, EXTRACTS, FLAVOURING, LIQUID (ETHANOL (ETHYL ALCOHOL), ISOBUTYL ACETATE), 3, III

15. Regulatory information

- ◊ **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- ◊ Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.
- ◊ Hazard pictograms
- ◊  
- ◊ GHS02 GHS07
- ◊ Signal word Warning
- ◊ Hazard statements
- H226 Flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H412 Harmful to aquatic life with long lasting effects.
- Contains Eugenol, Citronellol. May produce an allergic reaction.

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◊ **Precautionary statements**

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 P241 Use explosion-proof electrical/ventilating/lighting/equipment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- ◊ **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16. Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

◊ **Relevant phrases**

- H225 Highly flammable liquid and vapour.
 H226 Flammable liquid and vapour.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.
- R10 Flammable.
 R11 Highly flammable.
 R36 Irritating to eyes.
 R38 Irritating to skin.
 R43 May cause sensitisation by skin contact.
 R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R66 Repeated exposure may cause skin dryness or cracking.

◊ **Department issuing MSDS:** Regulatory Affairs

◊ **Contact:** Dr. Maja Zippel

◊ **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

◊ * Data compared to the previous version altered.