

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)



**Trade name :** PFW@ VANILYS  
**Revision date :** 26.05.2015  
**Print date :** 26-05-2015

**Version (Revision) :** 2.0.0 (1.0.3)

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

PFW@ VANILYS (W01822)

**1.2 Relevant identified uses of the substance or mixture and uses advised against**  
**Relevant identified uses**

Fragrance mixture which may be used in fragrance compounds according to the current legislation and IFRA rules.  
Reserved for industrial and professional use.

**Uses advised against**

Not intended for oral consumption.

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

**Supplier (manufacturer/importer/only representative/downstream user/distributor)**

PFW Aroma Chemicals B.V.

**Street :** Veemweg 29-31

**Postal code/city :** NL - 3371 MT Barneveld

**Telephone :** +31 342 40 77 00

**Telefax :** +31 342 40 77 20

**Information contact :** pfw@pfw.nl

**1.4 Emergency telephone number**

+31 342 40 77 93

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

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

May cause sensitization by skin contact. · Harmful by inhalation and if swallowed. · Irritating to eyes.  
R 43 · Xn ; R 20/22 · Xi ; R 36

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Eye Irrit. 2 ; H319 - Serious eye damage/eye irritation : Category 2A ; Causes serious eye irritation.  
Skin Sens. 1 ; H317 - Skin sensitisation : Category 1 ; May cause an allergic skin reaction.

**Hazard classes and hazard categories**

Eye Irrit. 2 · Skin Sens. 1 · Aquatic Acute 3

**2.2 Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard pictograms**



Exclamation mark (GHS07)

**Signal word**

Warning

**Hazard components for labelling**

# Safety Data Sheet

## according to Regulation (EC) No. 1907/2006 (REACH)



**Trade name :** PFW@ VANILYS  
**Revision date :** 26.05.2015  
**Print date :** 26-05-2015

**Version (Revision) :** 2.0.0 (1.0.3)

BENZYL ALCOHOL ; CAS No. : 100-51-6  
Piperonal ; CAS No. : 120-57-0  
Benzyl cinnamate ; CAS No. : 103-41-3

### Hazard statements

H317 May cause an allergic skin reaction.  
H412 Harmful to aquatic life with long lasting effects.

### Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P501 Dispose of contents/container to a chemical waste treatment facility or recycling plant.

### 2.3 Other hazards

None

## SECTION 3: Composition / information on ingredients

### 3.2 Mixtures

#### Hazardous ingredients

RESIN ACIDS AND ROSIN ACIDS, HYDROGENATED, Me ESTERS ; EC No. : 232-476-2; CAS No. : 8050-15-5

Weight fraction : 25 - 50 %  
Classification 1272/2008 [CLP] : None

BENZYL ALCOHOL ; EC No. : 202-859-9; CAS No. : 100-51-6

Weight fraction :  $\geq$  25 %  
Classification 1272/2008 [CLP] : Acute Tox. 4 ; H302 Acute Tox. 4 ; H332 Eye Irrit. 2 ; H319

1,1'-oxydipropan-2-ol ; EC No. : 203-821-4; CAS No. : 110-98-5

Weight fraction : < 2,5 %  
Classification 1272/2008 [CLP] : None

Piperonal ; EC No. : 204-409-7; CAS No. : 120-57-0

Weight fraction : 1 - 2,5 %  
Classification 1272/2008 [CLP] : Skin Sens. 1 ; H317

Benzyl cinnamate ; EC No. : 203-109-3; CAS No. : 103-41-3

Weight fraction : 1 - 2,5 %  
Classification 1272/2008 [CLP] : Skin Sens. 1 ; H317 Aquatic Chronic 2 ; H411

#### Additional information

Full text of R-, H- and EUH-phrases: see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

When in doubt or if symptoms are observed, get medical advice. Remove victim out of the danger area. Put victim at rest, cover with a blanket and keep warm. Do not leave affected person unattended. If unconscious place in recovery position and seek medical advice.

#### In case of inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : PFW@ VANILYS  
Revision date : 26.05.2015  
Print date : 26-05-2015

Version (Revision) : 2.0.0 (1.0.3)

## In case of skin contact

Wash immediately with: Water In case of skin reactions, consult a physician. Do not wash with: Solvents/Thinner

## After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

## After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting.

## 4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions.

## 4.3 Indication of any immediate medical attention and special treatment needed

None

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

alcohol resistant foam. Extinguishing powder.

#### Unsuitable extinguishing media

Strong water jet. Water mist.

### 5.2 Special hazards arising from the substance or mixture

#### Hazardous combustion products

In case of fire may be liberated: Carbon dioxide (CO<sub>2</sub>) Carbon monoxide (CO).

### 5.3 Advice for firefighters

Do not inhale explosion and combustion gases. Use water spray jet to protect personnel and to cool endangered containers. Do not allow run-off from fire-fighting to enter drains or water courses. Harmful to aquatic life. May cause long lasting harmful effects to aquatic life.

#### Special protective equipment for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Special danger of slipping by leaking/spilling product. Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation. Remove persons to safety. See protective measures under point 7 and 8.

### 6.2 Environmental precautions

Ensure all waste water is collected and treated via a waste water treatment plant. In case of entry into waterways, soil or drains, inform the responsible authorities. Harmful to aquatic life. May cause long lasting harmful effects to aquatic life.

### 6.3 Methods and material for containment and cleaning up

Suitable material for taking up: Sand, Kieselguhr, Universal binder, Sawdust. Collect in closed and suitable containers for disposal.

### 6.4 Reference to other sections

See protective measures under point 7 and 8.

## SECTION 7: Handling and storage

# Safety Data Sheet

## according to Regulation (EC) No. 1907/2006 (REACH)



**Trade name :** PFW@ VANILYS  
**Revision date :** 26.05.2015  
**Print date :** 26-05-2015

**Version (Revision) :** 2.0.0 (1.0.3)

### 7.1 Precautions for safe handling

Provide adequate ventilation as well as local exhaust ventilation at critical locations. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. All work processes must always be designed so that the following is as low as possible: eye contact, skin contact. In case of entry into waterways, soil or drains, inform the responsible authorities. Wear personal protection equipment (see chapter 8).

### 7.2 Conditions for safe storage, including any incompatibilities

#### Technical measures and storage conditions

Keep the packing dry and well sealed to prevent contamination and absorption of humidity. Never use pressure to empty container.

#### Hints on joint storage

Keep away from oxidising agent, acid and alkali.

**Storage class :** 10

**Storage class (TRGS 510) :** 10

### 7.3 Specific end use(s)

None

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

To date, no national critical limit values exist.

#### DNEL/DMEL and PNEC values

##### DNEL/DMEL

Limit value type :	DNEL/DMEL (Consumer) ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )
Exposure route :	Dermal
Exposure frequency :	Short term (acute), systemic
Limit value :	29 mg/kg bw/day
Limit value type :	DNEL/DMEL (Consumer) ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )
Exposure route :	Inhalation
Exposure frequency :	Short term (acute), systemic
Limit value :	40 mg/m <sup>3</sup>
Limit value type :	DNEL/DMEL (Consumer) ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )
Exposure route :	Oral
Exposure frequency :	Short term (acute), systemic
Limit value :	25 mg/kg bw/day
Limit value type :	DNEL/DMEL (Consumer) ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )
Exposure route :	Inhalation
Exposure frequency :	Long Term (repeated), systemic
Limit value :	8,11 mg/m <sup>3</sup>
Limit value type :	DNEL/DMEL (Consumer) ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )
Exposure route :	Oral
Exposure frequency :	Long Term (repeated), systemic
Limit value :	5 mg/kg bw/day
Limit value type :	DNEL/DMEL (Industrial) ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )
Exposure route :	Dermal
Exposure frequency :	Short term (acute), systemic
Limit value :	47 mg/kg bw/day
Limit value type :	DNEL/DMEL (Industrial) ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )
Exposure route :	Inhalation
Exposure frequency :	Short term (acute), systemic
Limit value :	450 mg/m <sup>3</sup>

# Safety Data Sheet

## according to Regulation (EC) No. 1907/2006 (REACH)



**Trade name :** PFW@ VANILYS  
**Revision date :** 26.05.2015  
**Print date :** 26-05-2015

**Version (Revision) :** 2.0.0 (1.0.3)

Limit value type : DNEL/DMEL (Industrial) ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )  
Exposure route : Dermal  
Exposure frequency : Long Term (repeated), systemic  
Limit value : 9,5 mg/kg bw/day  
Limit value type : DNEL/DMEL (Industrial) ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )  
Exposure route : Inhalation  
Exposure frequency : Long Term (repeated), systemic  
Limit value : 90 mg/kg bw/day

### **PNEC**

Limit value type : PNEC aquatic, freshwater ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )  
Exposure route : Water (Including sewage plant)  
Limit value : 1 mg/l  
Limit value type : PNEC aquatic, intermittent release ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )  
Exposure route : Water (Including sewage plant)  
Limit value : 2,3 mg/l  
Limit value type : PNEC aquatic, marine water ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )  
Exposure route : Water (Including sewage plant)  
Limit value : 0,1 mg/l  
Limit value type : PNEC sediment, freshwater ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )  
Exposure route : Water (Including sewage plant)  
Limit value : 5,27 mg/kg sediment dw  
Limit value type : PNEC sediment, marine water ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )  
Exposure route : Water (Including sewage plant)  
Limit value : 0,527 mg/kg sediment dw  
Limit value type : PNEC soil, freshwater ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )  
Exposure route : Soil  
Limit value : 0,456 mg/kg soil dw  
Limit value type : PNEC sewage treatment plant (STP) ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )  
Exposure route : Water (Including sewage plant)  
Limit value : 39 mg/l

## **8.2 Exposure controls**

When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

### **Appropriate engineering controls**

No special technical protective measures are necessary.

### **Personal protection equipment**

#### **Eye/face protection**

Eye glasses with side protection

#### **Skin protection**

##### **Hand protection**

Gloves. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. Breakthrough times and swelling properties of the material must be taken into consideration.

**Suitable material :** Butyl caoutchouc (butyl rubber)

**Breakthrough time (maximum wearing time) :** >240 min.

**Thickness of the glove material :** 1.00 mm.

##### **Body protection**

Overall

#### **Respiratory protection**

Respiratory protection necessary at: exceeding exposure limit values insufficient ventilation insufficient exhaust  
Handling larger quantities. Container device with compressed air (DIN EN 137) / Filtering device (full mask or

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : PFW@ VANILYS  
Revision date : 26.05.2015  
Print date : 26-05-2015

Version (Revision) : 2.0.0 (1.0.3)

mouthpiece) with filter: Filter types:A, B, E, K. Class 1: Maximum permitted contaminant concentration in inhaled air = 1000 mL/m<sup>3</sup> (0.1 % by vol.); class 2: maximum permitted contaminant concentration in inhaled air = 5000 mL/m<sup>3</sup> (0.5 % by vol.); class 3: maximum permitted contaminant concentration in inhaled air = 10000 mL/m<sup>3</sup> (1.0 % by vol.)

## Environmental exposure controls

Send to a hazardous waste incinerator facility under observation of official regulations.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Safety relevant basis data

Physical state :			liquid	
Colour :			Light yellowish.	
Odour :			vanillic	
Boiling temperature/boiling range :	( 1013 hPa )		No data available	
Freezing point :		<	-20 °C	
Flash point (Closed Cup) :		>	100 °C	DIN EN 51578
Auto-ignition temperature :			No data available	
Decomposition temperature			No data available	
Lower explosion limit :			No data available	
Upper explosion limit :			No data available	
Explosive properties :			none	
Vapour pressure :	( 20 °C )		No data available	
Evaporation rate (n-butylacetate = 1) :			No data available	
Relative density (water = 1) :	( 20 °C )		1,019 - 1,029	
Density :	( 20 °C )		1,025	g/cm <sup>3</sup>
Water solubility :			insoluble (0.1mg/l)	
pH value :			not applicable	
Log Pow :			No data available	
Viscosity :	( 20 °C )		No data available	
Odour threshold :			No data available	
Vapour density (air = 1) :	( 1013 hPa / 20 °C )		No data available	
Oxidising properties :			No data available	

### 9.2 Other information

None

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No information available.

### 10.2 Chemical stability

No information available.

### 10.3 Possibility of hazardous reactions

No information available.

### 10.4 Conditions to avoid

No information available.

### 10.5 Incompatible materials

Exothermic reaction with: oxidising agent strong acid strong alkali

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



**Trade name :** PFW@ VANILYS  
**Revision date :** 26.05.2015  
**Print date :** 26-05-2015

**Version (Revision) :** 2.0.0 (1.0.3)

## 10.6 Hazardous decomposition products

Decomposition with: Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO).

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

The product is a mixture for which no toxicological data exist. Risk assessment is based on the hazards of the individual substances. sensitising. May cause an allergic skin reaction.

#### Acute effects

##### Acute oral toxicity

Parameter :	LD50 ( RESIN ACIDS AND ROSIN ACIDS, HYDROGENATED, Me ESTERS ; CAS No. : 8050-15-5 )
Exposure route :	Oral
Species :	Rat
Effective dose :	> 2000 mg/kg
Source :	PFW Aroma Chemicals BV
Parameter :	LD50 ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )
Exposure route :	Oral
Species :	Rat
Effective dose :	1230 mg/kg
Parameter :	LD50 ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )
Exposure route :	Oral
Species :	Rat
Effective dose :	1620 mg/kg
Parameter :	LD50 ( Benzyl cinnamate ; CAS No. : 103-41-3 )
Exposure route :	Oral
Species :	Rat
Effective dose :	3,28 g/kg
Source :	Research Institute for Fragrance Materials (RIFM)
Parameter :	LD50 ( 4'-tert-butyl-2',6'-dimethylacetophenone ; CAS No. : 2040-10-0 )
Exposure route :	Oral
Species :	Rat
Effective dose :	260 mg/kg
Exposure time :	15 days
Methode :	OECD 401 Acute Oral Toxicity
Source :	PFW Aroma Chemicals BV
Parameter :	LD50 ( 3-ethoxy-4-hydroxybenzaldehyde ; CAS No. : 121-32-4 )
Exposure route :	Oral
Species :	Rabbit
Effective dose :	3000 mg/kg
Source :	Research Institute for Fragrance Materials (RIFM)
Parameter :	LD50 ( 5-butylidihydro-4-methylfuran-2(3H)-one ; CAS No. : 39212-23-2 )
Exposure route :	Oral
Species :	Rat
Effective dose :	> 9660 mg/kg
Methode :	OECD 401 Acute Oral Toxicity
Source :	PFW Aroma Chemicals BV

##### Acute dermal toxicity

Parameter :	LD50 ( Benzyl cinnamate ; CAS No. : 103-41-3 )
Exposure route :	Dermal
Species :	Rabbit

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



**Trade name :** PFW@ VANILYS  
**Revision date :** 26.05.2015  
**Print date :** 26-05-2015

**Version (Revision) :** 2.0.0 (1.0.3)

Effective dose : > 3 g/kg  
Source : Research Institute for Fragrance Materials (RIFM)  
Parameter : LD50 ( 4'-tert-butyl-2',6'-dimethylacetophenone ; CAS No. : 2040-10-0 )  
Exposure route : Dermal  
Species : Rat  
Effective dose : 1100 mg/kg  
Exposure time : 3 days  
Methode : OECD 402  
Source : PFW Aroma Chemicals BV

### Acute inhalation toxicity

Parameter : LC50 ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )  
Exposure route : Inhalation  
Species : Rat  
Effective dose : 1000 ppm  
Exposure time : 8 h

### Irritant and corrosive effects

#### Primary irritation to the skin

Parameter : Irritation of the skin ( RESIN ACIDS AND ROSIN ACIDS, HYDROGENATED, Me ESTERS ; CAS No. : 8050-15-5 )  
Parameter : human  
Result : No irritation  
Methode : Vehicle: N/A  
Source : PFW Aroma Chemicals BV  
Parameter : Irritation of the skin ( ISOPROPYL MYRISTATE ; CAS No. : 110-27-0 )  
Result : No Irritation  
Parameter : Irritation of the skin ( Benzyl cinnamate ; CAS No. : 103-41-3 )  
Parameter : human  
Result : No Irritation  
Source : Research Institute for Fragrance Materials (RIFM)  
Parameter : Irritation of the skin ( 4'-tert-butyl-2',6'-dimethylacetophenone ; CAS No. : 2040-10-0 )  
Parameter : Rabbit  
Result : No Irritation  
Methode : OECD 404 Acute Dermal Irritation/Corrosion  
Source : PFW Aroma Chemicals BV  
Parameter : Irritation of the skin ( 5-butylidihydro-4-methylfuran-2(3H)-one ; CAS No. : 39212-23-2 )  
Species : Albino rabbit  
Parameter : in-vivo  
Result : No Irritation  
Methode : OECD 404 Acute Dermal Irritation/Corrosion  
Source : PFW Aroma Chemicals BV

### Sensitisation

#### In case of skin contact

Parameter : Skin sensitisation ( 5-butylidihydro-4-methylfuran-2(3H)-one ; CAS No. : 39212-23-2 )  
Species : Guinea pig  
Parameter : in-vivo  
Result : not sensitising  
Methode : OECD 406 Skin Sensitisation  
Source : PFW Aroma Chemicals BV  
Parameter : Skin sensitisation ( 5-butylidihydro-4-methylfuran-2(3H)-one ; CAS No. : 39212-23-2 )  
Species : Guinea pig  
Parameter : in-vivo



# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



**Trade name :** PFW@ VANILYS  
**Revision date :** 26.05.2015  
**Print date :** 26-05-2015

**Version (Revision) :** 2.0.0 (1.0.3)

Result : no photosensitisation  
Methode : Draize  
Source : PFW Aroma Chemicals BV  
Parameter : Skin sensitisation ( 5-butylidihydro-4-methylfuran-2(3H)-one ; CAS No. : 39212-23-2 )  
Species : rabbit  
Parameter : in-vivo  
Result : not phototoxic  
Methode : Draize  
Source : PFW Aroma Chemicals BV

## SECTION 12: Ecological information

### 12.1 Toxicity

The product is a mixture for which no ecotoxicological data exist. Risk assessment is based on the hazards of the individual substances.

#### Aquatic toxicity

##### Acute (short-term) fish toxicity

Parameter : LC50 ( 5-butylidihydro-4-methylfuran-2(3H)-one ; CAS No. : 39212-23-2 )  
Species : Acute (short-term) fish toxicity  
Effective dose : 10 - 100 mg/l  
Exposure time : 96 h  
Methode : QSAR  
Source : PFW Aroma Chemicals BV

##### Acute (short-term) daphnia toxicity

Parameter : EC50 ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 230 mg/l  
Exposure time : 48 h  
Methode : OECD 203 Acute toxicity for fish  
Source : SDS  
Parameter : EC50 ( 5-butylidihydro-4-methylfuran-2(3H)-one ; CAS No. : 39212-23-2 )  
Species : Acute (short-term) daphnia toxicity  
Effective dose : 10 - 100 mg/l  
Exposure time : 48 h  
Methode : QSAR  
Source : PFW Aroma Chemicals BV

##### Acute (short-term) algae toxicity

Parameter : EC50 ( BENZYL ALCOHOL ; CAS No. : 100-51-6 )  
Species : Acute (short-term) algae toxicity  
Effective dose : 770 mg/l  
Methode : OECD 201 Freshwater algae and cyanobacteria, growth inhibition test  
Source : SDS  
Parameter : EC50 ( 5-butylidihydro-4-methylfuran-2(3H)-one ; CAS No. : 39212-23-2 )  
Species : Acute (short-term) algae toxicity  
Effective dose : 10 - 100 mg/l  
Exposure time : 96 h  
Methode : QSAR  
Source : PFW Aroma Chemicals BV

### 12.2 Persistence and degradability

#### Biodegradation

# Safety Data Sheet

## according to Regulation (EC) No. 1907/2006 (REACH)



**Trade name :** PFW® VANILYS  
**Revision date :** 26.05.2015  
**Print date :** 26-05-2015

**Version (Revision) :** 2.0.0 (1.0.3)

Analytical method : Biodegradation ( 4'-tert-butyl-2',6'-dimethylacetophenone ; CAS No. : 2040-10-0 )  
Evaluation : Not readily biodegradable (according to OECD criteria)  
Methode : QSAR  
Source : PFW Aroma Chemicals BV  
Analytical method : Biodegradation ( 5-butylidihydro-4-methylfuran-2(3H)-one ; CAS No. : 39212-23-2 )  
Parameter : Degree of elimination  
Type : Aerobic  
Degradation rate : 98 %  
Time : 28 days  
Evaluation : readily biodegradable (>73% degraded after 28 days)  
Methode : Closed Bottle Test (Method OECD 301D)  
Source : PFW Aroma Chemical BV

### 12.3 Bioaccumulative potential

Parameter : Bioconcentration factor (BCF) ( 4'-tert-butyl-2',6'-dimethylacetophenone ; CAS No. : 2040-10-0 )  
Result : ca. 150 l/kg ww  
Methode : QSAR  
Source : PFW Aroma Chemicals BV  
Parameter : Bioconcentration factor (BCF) ( 5-butylidihydro-4-methylfuran-2(3H)-one ; CAS No. : 39212-23-2 )  
Species : BCF  
Result : ca. 10 l/kg ww  
Methode : QSAR  
Source : PFW Aroma Chemicals BV  
Parameter : Partition coefficient n-octanol /water (log P O/W) ( 4'-tert-butyl-2',6'-dimethylacetophenone ; CAS No. : 2040-10-0 )  
Result : ca. 4,7  
Methode : QSAR  
Source : PFW Aroma Chemicals BV  
Parameter : Partition coefficient n-octanol/water (log P O/W) ( 5-butylidihydro-4-methylfuran-2(3H)-one ; CAS No. : 39212-23-2 )  
Result : ca. 2  
Methode : QSAR  
Source : PFW Aroma Chemicals BV

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

### 12.6 Other adverse effects

Harmful to aquatic life. May cause long lasting harmful effects to aquatic life.

### 12.7 Further ecological information

None

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Send to a hazardous waste incinerator facility under observation of official regulations. Clean IBCs or drums at approved facility only. Contaminated packages must be completely emptied and can be re-used following proper cleaning. Packing which cannot be properly cleaned must be disposed of. Handle contaminated packages in the same way as the substance itself.

# Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)



Trade name : PFW@ VANILYS  
Revision date : 26.05.2015  
Print date : 26-05-2015

Version (Revision) : 2.0.0 (1.0.3)

## SECTION 14: Transport information

### 14.1 UN number

No dangerous goods in sense of this transport regulation.

### 14.2 UN proper shipping name

No dangerous goods in sense of this transport regulation.

### 14.3 Transport hazard class(es)

No dangerous goods in sense of this transport regulation.

### 14.4 Packing group

No dangerous goods in sense of this transport regulation.

### 14.5 Environmental hazards

No dangerous goods in sense of this transport regulation.

### 14.6 Special precautions for user

None

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National regulations

##### Water hazard class (WGK)

Class : water pollutant according VwVwS

##### Other regulations, restrictions and prohibition regulations

### 15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### 16.1 Indication of changes

02. Classification of the substance or mixture · 02. Labelling (67/548/EEC or 1999/45/EC) · 03. Hazardous ingredients

### 16.2 Abbreviations and acronyms

a.i. = Active ingredient; ACGIH = American Conference of Governmental Industrial Hygienists (US); ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road; AFFF = Aqueous Film Forming Foam; AICS = Australian Inventory of Chemical Substances; AISE = International Association for Soaps, Detergents and Maintenance Products (joint project of AISE and CEFIC); AOAC = AOAC International (formerly Association of Official Analytical Chemists); aq. = Aqueous; Asia-PAC = Asia Pacific; ASTM = American Society of Testing and Materials (US); atm = Atmosphere(s); B.V. = Beperkt Vennootschap (LTD = Limited); BCF = Bioconcentration Factor; bp = Boiling point at stated pressure; bw = Body weight; ca = (Circa) about; CAS No = Chemical Abstracts Service Number (see ACS - American Chemical Society); CEFIC = European Chemical Industry Council (established 1972); CEPA = Canadian Environmental Protection Act (CAN); CEPA = Canadian Environmental Protection Act (Canada); CIPAC = Collaborative International Pesticides Analytical Council; CLP = REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.; CoE = Council of Europe (EU); Conc = Concentration; cP = CentiPoise; CSNN = Chemical Substance Nomination & Notification (Taiwan); cSt = Centistokes; d = Day(s); DIN = Deutsches Institut für Normung e.V.; DNEL = Derived No-Effect Level; DSL = Domestic Substances List; DT50 = Time for 50% loss; half-life; EbC50 = Median effective concentration (biomass, e.g. of algae); EC = European Community; European Commission; EC50 = Median effective concentration; ECL = Existing Chemicals List (Korea); EINECS = European Inventory of Existing Commercial Chemical Substances (EU, outdated, now replaced by EC Number); ELINCS = European List of Notified (New) Chemicals; ENCS = Existing and New Chemical Substances Inventory (Japan); ErC50 = Median effective

# Safety Data Sheet

## according to Regulation (EC) No. 1907/2006 (REACH)



**Trade name :** PFW@ VANILYS  
**Revision date :** 26.05.2015  
**Print date :** 26-05-2015

**Version (Revision) :** 2.0.0 (1.0.3)

concentration (growth rate, e.g. of algae); EU = European Union; EWC = European Waste Catalogue; FAO = Food and Agriculture Organization (United Nations); FEMA = Flavor & Extract Manufacturers Association (USA); FLAVIS = Flavour Information System (EU); GIFAP = Groupement International des Associations Nationales de Fabricants de Produits Agrochimiques (now CroLife International); GRAS = Generally Recognized As Safe (USA); h = Hour(s); hPa = HectoPascal (unit of pressure); IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; IC50 = Concentration that produces 50% inhibition; IECSC = Inventory of Existing Chemical Substances (China); IMDG Code = International Maritime Dangerous Goods Code; IMO = International Maritime Organization; ISO = International Organization for Standardization; IUCLID = International Uniform Chemical Information Database; IUPAC = International Union of Pure and Applied Chemistry; IVIS = In-Vitro Irritancy Score; JECFA = Joint Expert Committee on Food Additives (United Nations); kg = Kilogram; Kow = Distribution coefficient between n-octanol and water; kPa = KiloPascal (unit of pressure); LC50 = Concentration required to kill 50% of test organisms; LD50 = Dose required to kill 50% of test organisms; LEL = Lower Explosive Limit/Lower Explosion Limit; LOAEL = Lowest observed adverse effect level; LVE = Low Volume Exemption; mg = Milligram; min = Minute(s); ml = Milliliter; mmHg = Pressure equivalent to 1 mm of mercury (133.3 Pa); mp = Melting point; MRL = Maximum Residue Limit; MSDS = Material Safety Data Sheet; n.o.s. = Not Otherwise Specified; NDSL = Non-Domestic Substances List; NIOSH = National Institute for Occupational Safety and Health (US); NOAEL = No Observed Adverse Effect Level; NOEC = No observed effect concentration; NOEL = No Observable Effect Level; NOx = Oxides of Nitrogen; NZIoC = New Zealand Inventory of Chemicals; OECD = Organization for Economic Cooperation and Development; OEL = Occupational Exposure Limits; Pa = Pascal (unit of pressure); PBT = Persistent, Bioaccumulative or Toxic; pH = -log<sub>10</sub> hydrogen ion concentration; PICCS = Philippine Inventory of Chemicals and Chemical Substances; pKa = -log<sub>10</sub> acid dissociation constant; PNEC = Predicted No Effect Concentration; POPs = Persistent Organic Pollutants; ppb = Parts per billion; PPE = Personal Protection Equipment; ppm = Parts per million; ppt = Parts per trillion; PVC = Polyvinyl Chloride; QSAR = Quantitative Structure-Activity Relationship; REACH = Registration, Evaluation and Authorization of Chemicals (EU, see NCP); SI = International System of Units; STEL = Short-Term Exposure Limit; tech. = Technical grade; TSCA = Toxic Substances Control Act (US); TSCA = Toxic Substances Control Act (USA); TWA = Time-Weighted Average; UN = United Nations; vPvB = Very Persistent and Very Bioaccumulative; VwVwS = Verwaltungsvorschrift wassergefährdender Stoffe; WHO = World Health Organization = OMS; y = Year(s);

### 16.3 Key literature references and sources for data

None

### 16.5 Relevant R-, H- and EUH-phrases (Number and full text)

H302+H332	Harmful if swallowed or if inhaled.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
20/22	Harmful by inhalation and if swallowed.
36	Irritating to eyes.
43	May cause sensitization by skin contact.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 16.6 Training advice

None

### 16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.