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Revision: 09.04.2024

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

Printing date 09.04.2024

Version number 2 (replaces version 1)

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

1.1 Product identifier

Trade name: STRAWBERRY OS 3413/21

Article number: 23322200

UFI:

663S-5099-H002-S7R6

The product does not contain any nanomaterials.

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

Life cycle stages IS Use at industrial Sites

Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

Product category PC28 Perfumes, fragrances

Technical function Food flavouring

Application of the substance / the mixture

Flavouring agents

Food

Uses advised against Not for personal use in this form or concentration

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

VIORYL S.A.

28th km Athens - Lamia Nat. Road

Afidnes, 190 14

Greece

+30 22950 45100

regulatory@vioryl.gr

Further information obtainable from: Regulatory Affairs Department

1.4 Emergency telephone number:

Poison centre

(+30) 210 7793777

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



Skin Sens. 1 H317 May cause an allergic skin reaction.

2.2 Label elements

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

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Hazard pictograms





GHS05 GHS07

Signal word Danger

Hazard-determining components of labelling:

4-Hydroxy-2,5-dimethyl-3(2H)-furanone

butyric acid

methyl cinnamate

2-methylbutyric acid

Benzyl alcohol

Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

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

P310 Immediately call a POISON CENTER/doctor.
P321 Specific treatment (see on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

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

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

CAS: 928-96-1

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 3658-77-3 4-Hydroxy-2,5-dimethyl-3(2H)-furanone ≥5–≤10%

EINECS: 222-908-8 📀 Skin Corr. 1B, H314; 🗘 Acute Tox. 4, H302; Skin Sens. 1, H317, EUH071

>2.5-<10%

EINECS: 213-192-8 🏇 Flam. Liq. 3, H226; 🛟 Eye Irrit. 2, H319

cis-3-Hexenol

CAS: 107-92-6 butyric acid

EINECS: 203-532-3 📀 Skin Corr. 1B, H314; Eye Dam. 1, H318; 😲 Acute Tox. 4, H302

CAS: 116-53-0 2-methylbutyric acid ≥1–≤2.5%

EINECS: 204-145-2 Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312

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≥3-<5%



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CAS: 51115-64-1 2-methylbutyl butyrate ≤2.5%

EINECS: 256-973-9 🏇 Flam. Liq. 3, H226 CAS: 103-26-4 methyl cinnamate

≥1-≤2.5%

EINECS: 203-093-8 (1) Skin Sens. 1, H317

≤2.5%

Maltol EINECS: 204-271-8 (!) Acute Tox. 4, H302

≥1-≤2.5%

CAS: 71-36-3 butan-1-ol EINECS: 200-751-6 🏟 Flam. Liq. 3, H226; 🍄 Eye Dam. 1, H318; 🕩 Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE

3, H335-H336

CAS: 623-42-7 methyl butyrate ≤2.5%

EINECS: 210-792-1 🏇 Flam. Liq. 2, H225 CAS: 7452-79-1 ethyl 2-methylbutyrate

≤2.5%

EINECS: 231-225-4 🏇 Flam. Liq. 3, H226

≥0.1-<1%

CAS: 100-51-6 Benzyl alcohol EINECS: 202-859-9 (1) Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Eye Irrit. 2, H319; Skin Sens. 1B,

Regulation (EC) No 648/2004 on detergents / Labelling for contents

CAS: 118-71-8

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Drink plenty of water and provide fresh air. Call for a doctor immediately.

If symptoms persist consult doctor.

A person vomiting while laying on their back should be turned onto their side.

Seek immediate medical advice.

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture During heating or in case of fire poisonous gases are produced.

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5.3 Advice for firefighters

Protective equipment: Mouth respiratory protective device.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources.

Wear protective clothing.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

6.4 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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep receptacles tightly sealed.

Store in cool, dry place in tightly closed receptacles.

Keep away from heat and direct sunlight.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about fire - and explosion protection: Keep respiratory protective device available.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions:

Keep container tightly sealed.

Store receptacle in a well ventilated area.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

CAS: 71-36-3 butan-1-ol

TWA (Greece) Short-term value: 300 mg/m³, 100 ppm

Long-term value: 300 mg/m³, 100 ppm

Δ

Additional information: The lists valid during the making were used as basis.

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8.2 Exposure controls

Appropriate engineering controls No further data; see section 7.

Individual protection measures, such as 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:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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.

Not applicable.

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/face protection



Tightly sealed goggles

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Physical state Fluid

Colour:Pale yellow to yellowOdour:CharacteristicOdour threshold:Not determined.Melting point/freezing point:Undetermined.

Boiling point or initial boiling point and boiling range 156–157 °C (CAS: 928-96-1 cis-3-Hexenol)

Flammability

Lower and upper explosion limit

Lower:Not determined.Upper:Not determined.Flash point:70–100 °CDecomposition temperature:Not determined.

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pH Mixture is non-soluble (in water).

Viscosity:

Kinematic viscosity Dynamic:Not determined.
Not determined.

Solubility

water:Insoluble (10%)alcohols:Partly soluble.Partition coefficient n-octanol/water (log value)Not determined.Vapour pressure:Not determined.

Density and/or relative density

Density:Not determined.Relative densityNot determined.Vapour densityNot determined.

9.2 Other information

Appearance:

Form: Oily

Important information on protection of health and

environment, and on safety.

Ignition temperature: Product is not selfigniting.

Explosive properties: Product does not present an explosion hazard.

Void

Solvent content:

 Organic solvents:
 3.0 %

 VOC (EC)
 3.00 %

 VOCV (CH)
 3.00 %

 Solids content:
 12.4 %

 Refractive index
 1.443-1.453

Change in condition

Desensitised explosives

Evaporation rate Not determined.

Information with regard to physical hazard classes

Explosives Void Flammable gases Void Void **Aerosols** Void **Oxidising gases** Gases under pressure Void Flammable liquids Void Flammable solids Void Self-reactive substances and mixtures Void **Pyrophoric liquids** Void **Pyrophoric solids** Void Self-heating substances and mixtures Void Substances and mixtures, which emit flammable gases in contact with water Void **Oxidising liquids** Void **Oxidising solids** Void **Organic peroxides** Void Void Corrosive to metals

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SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.

- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral LD50 <7634 mg/kg
Dermal LD50 50000 mg/kg

CAS: 3658-77-3 4-Hydroxy-2,5-dimethyl-3(2H)-furanone

Oral LD50 <2000 mg/kg (rat)

CAS: 928-96-1 cis-3-Hexenol

Oral LD50 4700 mg/kg (rat)
Dermal LD50 >5000 mg/kg (rabbit)

CAS: 107-92-6 butyric acid

Oral LD50 2000 mg/kg (rat)
Dermal LD50 530 mg/kg (rabbit)

CAS: 103-26-4 methyl cinnamate

Oral LD50 2610 mg/kg (rat)

CAS: 118-71-8 Maltol

Oral LD50 1440 mg/kg (rat)
Dermal LD50 >2000 mg/kg (rat)

CAS: 71-36-3 butan-1-ol

Oral LD50 790 mg/kg (rat)
Dermal LD50 3400 mg/kg (rabbit)
Inhalative LC50/4 h 8000 mg/l (rat)

CAS: 623-42-7 methyl butyrate

Oral LD50 >5000 mg/kg (rat)

Dermal LD50 3560 mg/kg (rabbit)

CAS: 100-51-6 Benzyl alcohol

Oral LD50 1230 mg/kg (rat)
Dermal LD50 2000 mg/kg (rabbit)

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/irritation Causes serious eye damage.

Respiratory or skin sensitisation May cause an allergic skin reaction.



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Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: No further relevant information available.

- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- 12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

European waste catalogue

Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

HP8 Corrosive

HP13 Sensitising

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADR, IMDG, IATA UN3265

14.2 UN proper shipping name

ADR 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (4-Hydroxy-2,5-dimethyl-

3(2H)-furanone, 2-methylbutyric acid)

IMDG CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (4-Hydroxy-2,5-dimethyl-

3(2H)-furanone, 2-methylbutyric acid)

IATA Corrosive liquid, acidic, organic, n.o.s. (4-Hydroxy-2,5-dimethyl-3(2H)-

furanone, 2-methylbutyric acid)

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14.3 Transport hazard class(es)

ADR, IMDG, IATA



8 Corrosive substances. Class

Label 8

14.4 Packing group

ADR, IMDG, IATA

14.5 Environmental hazards: Not applicable.

14.6 Special precautions for user Warning: Corrosive substances.

Hazard identification number (Kemler code):

F-A,S-B **EMS Number:** Segregation groups (SGG1) Acids

Stowage Category

Stowage Code SW2 Clear of living quarters.

Segregation Code SG36 Stow "separated from" SGG18-alkalis.

SG49 Stow "separated from" SGG6-cyanides

14.7 Maritime transport in bulk according to IMO

instruments Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ) 1L **Excepted quantities (EQ)** Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

Transport category Tunnel restriction code Ε

IMDG

Limited quantities (LQ) 1L Code: E2 **Excepted quantities (EQ)**

> Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation": UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (4-HYDROXY-2,5-

DIMETHYL-3(2H)-FURANONE, 2-METHYLBUTYRIC ACID), 8, II

SECTION 15: Regulatory information

15.1 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





GHS05

GHS07



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Signal word Danger

Hazard-determining components of labelling:

4-Hydroxy-2,5-dimethyl-3(2H)-furanone

butyric acid

methyl cinnamate

2-methylbutyric acid

Benzyl alcohol

Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

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

P310 Immediately call a POISON CENTER/doctor. P321 Specific treatment (see on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P405 Store locked up.

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I None of the ingredients is listed.

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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.

This Safety Data Sheets is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

Relevant phrases

H225 Highly flammable liquid and vapour.



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H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

EUH071 Corrosive to the respiratory tract.

May cause respiratory irritation.

May cause drowsiness or dizziness.

Department issuing SDS: Regulatory Affairs department

Contact:

H335

H336

Regulatory Affairs department

regulatory@vioryl.gr

Date of previous version: 08.04.2024 Version number of previous version: 1

Abbreviations and acronyms:

ADR: Accord relatif au transport international 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

 $\hbox{GHS: Globally Harmonised System of Classification and Labelling of Chemicals}$

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Flam. Liq. 2: Flammable liquids – Category 2 Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation - Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

^{*} Data compared to the previous version altered.