

Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2020/878 and Regulation No 1272/2008/EC (CLP)

Printing date 09.02.2021

Version number 1

Revision: 26.01.2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** Vnv Liquids - Benedict**1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

Application of the substance / the mixture: Flavor Concentrate**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

VnV Liquids
Gounari 21-23, Piraeus
P.O. BOX: 18531
Tel.: +302104310228
info@vnvliquids.gr
http://vnvliquids.gr

1.4 Emergency telephone number:

European Emergency Tel.: 112

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification according to Regulation EC No 1272/2008 CLP:**

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

2.2 Label elements**Labelling according to Regulation EC No 1272/2008 CLP:** Void**Hazard pictograms:** Void**Signal word:** Void**Hazard statements:** Void**Precautionary statements**

P102 Keep out of reach of children.

Additional information:

EUH208 Contains Veratraldehyde, pentane-2,3-dione. May produce an allergic reaction.

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****Description:** Mixture consisting of the following dangerous ingredients:

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Ingredients according Regulation (EU) 2020/878:

CAS: 121-33-5 EINECS: 204-465-2 Reg.nr.: 01-2119516040-60-XXXX	vanillin ⚠ Eye Irrit. 2, H319	≥2.5-<7%
CAS: 121-32-4 EINECS: 204-464-7 Reg.nr.: 01-2119958961-24-XXXX	3-ethoxy-4-hydroxybenzaldehyde ⚠ Eye Irrit. 2, H319	≥0-≤2.5%
CAS: 4940-11-8 EINECS: 225-582-5	2-ethyl-3-hydroxy-4-pyrone ⚠ Acute Tox. 4, H302	≥0-≤2.5%
CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5	ethanol ⚠ Flam. Liq. 2, H225	≤2.5%
CAS: 120-14-9 EINECS: 204-373-2	Veratraldehyde ⚠ Acute Tox. 4, H302; Skin Sens. 1B, H317	≥0.1-<1%
CAS: 600-14-6 EINECS: 209-984-8	pentane-2,3-dione ⚠ Flam. Liq. 2, H225; ⚠ STOT RE 2, H373; ⚠ Eye Dam. 1, H318; ⚠ Skin Sens. 1B, H317	≥0.1-<1%

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: Take affected persons out into the fresh air.

After inhalation: Seek medical treatment in case of complaints.

After skin contact:

Remove contaminated clothing.

Wash the skin immediately with soap and water.

In case of skin irritation, consult a physician.

After eye contact:

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

Check for and remove any contact lenses.

Continue to rinse for at least 15 minutes.

Get medical attention if irritation occurs.

Avoid strong water jet-risk of cornea damage, consult a doctor.

After swallowing:

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

Seek immediate medical advice.

Never give anything by mouth to an unconscious person.

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.

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SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray.

Use fire extinguishing methods suitable to surrounding conditions.

Foam

Sand or earth

For safety reasons unsuitable extinguishing agents: Water jet**5.2 Special hazards arising from the substance or mixture** No further relevant information available.**5.3 Advice for firefighters****Protective equipment:**

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

Wear protective goggles.

Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep unprotected persons away.

6.1.1 For non-emergency personnel Avoid contact with dripping or leaking material**6.1.2 For emergency responders**

Wear protective equipment. Keep unprotected persons away.

First-aid responders must wear protective clothing, gloves, goggles and respiratory device with filter type A.

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, silica gel).

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** Ensure good ventilation.**Information about fire - and explosion protection:** No special measures required.**7.2 Conditions for safe storage, including any incompatibilities****Storage:** Store in cool, dry conditions in well sealed receptacles.**Requirements to be met by storerooms and receptacles:** Store in a cool location.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** None.**7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

CAS: 57-55-6 Propane-1,2-diol

WEL (Great Britain)	Long-term value: 474* 10** mg/m ³ , 150* ppm *total vapour and particulates **particulates
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CAS: 64-17-5 ethanol

WEL (Great Britain)	Long-term value: 1920 mg/m ³ , 1000 ppm
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DNELs

Propane-1,2-diol cas number: 57-55-6

Workers (long-term systemic effects), inhalation: 168 mg/m³

Workers (long-term local effects), inhalation: 10 mg/m³

General population (long-term systemic effects), inhalation: 50 mg/m³

General population (long-term systemic effects), dermal: 213 mg / kg bw / day

General population (long-term systemic effects), oral: 85 mg / kg bw / day

General population (long-term local effects), inhalation: 10 mg/m³

Ethanol cas number: 64-17-5

Workers

Inhalation (long-term systemic effect): 950 mg/m³

Dermal (long-term systemic effect): 343 mg/kg bw/day

General Population

Inhalation (long-term systemic effect): 114 mg/m³

Dermal (long-term systemic effect): 203 mg/kg bw/day

Oral (long-term systemic effect): 87 mg/kg bw/day

PNECs

Propane-1,2 -diol cas number: 57-55-6

Fresh water: 260 mg/l

Marine water: 26 mg/l

Intermittent releases: 183 mg/l

STP: 20000 mg/l

Fresh water sediment: 572 mg/kg dw

Marine sediment: 57.2 mg/kg dw

Soil: 50 mg/kg dw

Ethanol cas number: 64-17-5

Freshwater: 0.96 mg/l

Marine water: 0.79 mg/l

Intermittent releases: 2.75 mg/l

STP: 580 mg/l

Sediment (freshwater): 3.6 mg/kg sediment dw

Sediment (marine water): 2.9 mg/kg sediment dw

Soil: 0.63 mg/kg soil dw

8.2 Exposure controls

8.2.1. Appropriate engineering controls Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures: Wash hands before breaks and at the end of work.

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Respiratory protection:



In case of insufficient ventilation use suitable respiratory protective device.

Hand protection



Protective gloves

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

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.

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.

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Eye/face protection



Goggles recommended during refilling

Body protection:



Chemical resistant protective suit.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Physical state	Liquid
Colour:	Not determined
Odour:	Characteristic
Odour threshold:	Not determined
Flammability	Not applicable
Lower and upper explosion limit	
Lower:	Not determined
Upper:	Not determined
Flash point:	Not Flammable
Auto-ignition temperature:	Product is not selfigniting.
Decomposition temperature:	Not determined
pH	Not determined
Viscosity:	
Kinematic viscosity	Not determined
Kinematic viscosity	
Dynamic:	Not determined

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Solubility

water:	Not determined
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure:	Not determined
Density and/or relative density	
Density:	Not determined
Relative density	Not determined
Vapour density	Not determined

9.2 Other information**Appearance:****Form:** Liquid**Important information on protection of health and environment, and on safety.**

Auto-ignition temperature:	Not determined
Explosive properties:	Product does not present an explosion hazard.
Cloud point / clarification point:	
Oxidising properties	Not oxidising
Evaporation rate	Not determined

Information with regard to physical hazard classes

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
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
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity**10.1 Reactivity** Stable under normal conditions**10.2 Chemical stability** Material is stable under normal conditions.**Thermal decomposition / conditions to be avoided** Stable at environment temperature.**10.3 Possibility of hazardous reactions** No dangerous reactions known.**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials** Oxidizing agents**10.6 Hazardous decomposition products** No dangerous decomposition products known.

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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:

(CAS: 56-81-5) Glycerol

LD50, oral, 27 mg/kg bw (rat)

LD50, oral, 23 000 mg/kg bw (mouse)

LD50, oral, 10 000 mg/kg bw (guinea pig)

LC50 (1h), inhalation, rat: >11 mg/L

LD50, dermal, guinea pig: 56.750 mg/kg

ATE (Acute Toxicity Estimates)

Oral	LD50	>68,249-69,403 mg/kg (rat)
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CAS: 121-33-5 vanillin

Oral	LD50	1,580 mg/kg (rat)
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CAS: 121-32-4 3-ethoxy-4-hydroxybenzaldehyde

Oral	LD50	1,590 mg/kg (rat)
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CAS: 4940-11-8 2-ethyl-3-hydroxy-4-pyrone

Oral	LD50	1,150 mg/kg (rat)
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CAS: 64-17-5 ethanol

Oral	LD50	7,060 mg/kg (rat)
Inhalative	LC50/4 h (vapour)	20,000 mg/l (rat)

CAS: 120-14-9 Veratraldehyde

Oral	LD50	2,000 mg/kg (rat)
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CAS: 600-14-6 pentane-2,3-dione

Oral	LD50	3,000 mg/kg (rat)
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Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

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.

Additional toxicological information:

Repeated dose toxicity

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

(CAS: 57-55-6) Propane-1,2-diol

inhalation - systemic effects:

adverse reaction observed NOAEC 1 000 mg / ml (subchronic, rat)

inhalation - local effects:

Side effect observed LOAEC 160 mg / m³ (subchronic, rat)

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11.2 Information on other hazards**Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity:**

Ethanol, cas: 64-17-5

Fish toxicity LC50:> 10000 mg / l

Daphnia toxicity, CEE0:> 7800 mg / l

Bacterial toxicity (Ps putida) CEE0:> 6500 mg / l

Algal toxicity (SC. Quadricauda), CEE0:> 5000 mg / l

Algal toxicity (M. Acruginosa), CEE0:> 1450 mg / l

Propane-1,2-diol cas number: 57-55-6

LC50 Oncorhynchus mykiss, 96 h: 40.613 mg/l

LC50 Ceriodaphnia dubia, 48 h: 18.340 mg/l

LC50 Mysidopsis bahia, 96 h: 18.800 mg/l

ErC50 Selenastrum capricornutum, 96 h: 19.000 mg/l

ErC50 Skeletonema costatum, 96 h: 19.100 mg/l

Long-term toxicity to aquatic invertebrates

NOEC (7 days) 13.02 - 29 g/L

Toxicity to microorganisms

EC10 or NOEC for microorganisms 20 g/L

(CAS: 56-81-5) Glycerol

LC50 (96h), fish: 54.000 mg/L

EC50 (48h), daphnia magna: 1.955 mg/L

Toxicity to aquatic algae and cyanobacteria

EC50 for freshwater algae 2.9 g/L

Toxicity to microorganisms

EC50 for microorganisms 10 g/L

EC10 or NOEC for microorganisms 10 g/L

12.2 Persistence and degradability No further relevant information available.**12.3 Bioaccumulative potential**

(CAS: 121-33-5) Vanillin

BCF = 6

Pow Log = 1.37

12.4 Mobility in soil

CAS: 121-33-5 Vanillin

Koc = 130

Absorption is high

Henry = 2.128E-4 Pa · m³ / mol

It is not dry soil

It is not wet soil

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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 No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation



Dispose according to National Regulations.



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

Contact manufacturer for recycling information.

Uncleaned packaging:

Recommendation:

Disposal must be made according to official regulations.

Packaging may be reused or recycled after cleaning.

SECTION 14: Transport information

14.1 UN number or ID number

ADR, IMDG, IATA

Void

14.2 UN proper shipping name

ADR, IMDG, IATA

Void

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA

Class

Void

14.4 Packing group

ADR, IMDG, IATA

Void

14.5 Environmental hazards:

Not applicable.

14.6 Special precautions for user

Not applicable.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

UN "Model Regulation":

Void

SECTION 15: Regulatory information

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

REACH Regulation 1907/2006/EC

Regulation (EU) 2020/878

CLP Regulation 1272/2008/EC

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Directive 98/24/EC on the protection of health and safety of workers from the risks related to chemicals agents at work.

Council Directive 94/33/EC on the protection of young people at work, as ammended.

Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, as ammended

Labelling according to Regulation (EC) No 1272/2008 Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

Precautionary statements

P102 Keep out of reach of children.

Directive 2012/18/EU

Named dangerous substances - ANNEX I Does not contain named substances.

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.

National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

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.

Relevant phrases

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

Training hints

Suitable training on safety in handling, storing and converting the product should be given to the employees based on all the existing information.

Department issuing SDS:

SUSTCHEM SUSTCHEM S.A.
REACH & Chemical Services Department
A: 144, 3rd Septemvriou, GR 112 51 | Athens, Greece
T: +30 210 8252510 | F: +30 210 8252575
W: www.sustchem.gr | E: info@suschem.gr

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

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IATA: International Air Transport Association
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)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1B: Skin sensitisation – Category 1B
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** Vnv Liquids - Benedict**1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

Application of the substance / the mixture: Flavor Concentrate**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

VnV Liquids
Gounari 21-23, Piraeus
P.O. BOX: 18531
Tel.: +302104310228
info@vnvliquids.gr
http://vnvliquids.gr

1.4 Emergency telephone number:

European Emergency Tel.: 112

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification according to Regulation EC No 1272/2008 CLP:**

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

2.2 Label elements**Labelling according to Regulation EC No 1272/2008 CLP:** Void**Hazard pictograms:** Void**Signal word:** Void**Hazard statements:** Void**Precautionary statements**

P102 Keep out of reach of children.

Additional information:

EUH208 Contains Veratraldehyde, pentane-2,3-dione. May produce an allergic reaction.

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****Description:** Mixture consisting of the following dangerous ingredients:

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Ingredients according Regulation (EU) 2020/878:

CAS: 121-33-5 EINECS: 204-465-2 Reg.nr.: 01-2119516040-60-XXXX	vanillin ⚠ Eye Irrit. 2, H319	≥2.5-<7%
CAS: 121-32-4 EINECS: 204-464-7 Reg.nr.: 01-2119958961-24-XXXX	3-ethoxy-4-hydroxybenzaldehyde ⚠ Eye Irrit. 2, H319	≥0-≤2.5%
CAS: 4940-11-8 EINECS: 225-582-5	2-ethyl-3-hydroxy-4-pyrone ⚠ Acute Tox. 4, H302	≥0-≤2.5%
CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5	ethanol ⚠ Flam. Liq. 2, H225	≤2.5%
CAS: 120-14-9 EINECS: 204-373-2	Veratraldehyde ⚠ Acute Tox. 4, H302; Skin Sens. 1B, H317	≥0.1-<1%
CAS: 600-14-6 EINECS: 209-984-8	pentane-2,3-dione ⚠ Flam. Liq. 2, H225; ⚠ STOT RE 2, H373; ⚠ Eye Dam. 1, H318; ⚠ Skin Sens. 1B, H317	≥0.1-<1%

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:** Take affected persons out into the fresh air.**After inhalation:** Seek medical treatment in case of complaints.**After skin contact:**

Remove contaminated clothing.

Wash the skin immediately with soap and water.

In case of skin irritation, consult a physician.

After eye contact:

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

Check for and remove any contact lenses.

Continue to rinse for at least 15 minutes.

Get medical attention if irritation occurs.

Avoid strong water jet-risk of cornea damage, consult a doctor.

After swallowing:

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

Seek immediate medical advice.

Never give anything by mouth to an unconscious person.

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.

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SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents:**CO₂, powder or water spray. Fight larger fires with water spray.

Use fire extinguishing methods suitable to surrounding conditions.

Foam

Sand or earth

For safety reasons unsuitable extinguishing agents: Water jet**5.2 Special hazards arising from the substance or mixture** No further relevant information available.**5.3 Advice for firefighters****Protective equipment:**

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

Wear protective goggles.

Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep unprotected persons away.

6.1.1 For non-emergency personnel Avoid contact with dripping or leaking material**6.1.2 For emergency responders**

Wear protective equipment. Keep unprotected persons away.

First-aid responders must wear protective clothing, gloves, goggles and respiratory device with filter type A.

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, silica gel).

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** Ensure good ventilation.**Information about fire - and explosion protection:** No special measures required.**7.2 Conditions for safe storage, including any incompatibilities****Storage:** Store in cool, dry conditions in well sealed receptacles.**Requirements to be met by storerooms and receptacles:** Store in a cool location.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** None.**7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****CAS: 57-55-6 Propane-1,2-diol**

WEL (Great Britain)	Long-term value: 474* 10** mg/m ³ , 150* ppm *total vapour and particulates **particulates
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CAS: 64-17-5 ethanol

WEL (Great Britain)	Long-term value: 1920 mg/m ³ , 1000 ppm
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DNELs

Propane-1,2-diol cas number: 57-55-6

Workers (long-term systemic effects), inhalation: 168 mg/m³Workers (long-term local effects), inhalation: 10 mg/m³General population (long-term systemic effects), inhalation: 50 mg/m³

General population (long-term systemic effects), dermal: 213 mg / kg bw / day

General population (long-term systemic effects), oral: 85 mg / kg bw / day

General population (long-term local effects), inhalation: 10 mg/m³

Ethanol cas number: 64-17-5

Workers

Inhalation (long-term systemic effect): 950 mg/m³

Dermal (long-term systemic effect): 343 mg/kg bw/day

General Population

Inhalation (long-term systemic effect): 114 mg/m³

Dermal (long-term systemic effect): 203 mg/kg bw/day

Oral (long-term systemic effect): 87 mg/kg bw/day

PNECs

Propane-1,2 -diol cas number: 57-55-6

Fresh water: 260 mg/l

Marine water: 26 mg/l

Intermittent releases: 183 mg/l

STP: 20000 mg/l

Fresh water sediment: 572 mg/kg dw

Marine sediment: 57.2 mg/kg dw

Soil: 50 mg/kg dw

Ethanol cas number: 64-17-5

Freshwater: 0.96 mg/l

Marine water: 0.79 mg/l

Intermittent releases: 2.75 mg/l

STP: 580 mg/l

Sediment (freshwater): 3.6 mg/kg sediment dw

Sediment (marine water): 2.9 mg/kg sediment dw

Soil: 0.63 mg/kg soil dw

8.2 Exposure controls**8.2.1. Appropriate engineering controls** Provide adequate ventilation.**Individual protection measures, such as personal protective equipment****General protective and hygienic measures:** Wash hands before breaks and at the end of work.

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Respiratory protection:



In case of insufficient ventilation use suitable respiratory protective device.

Hand protection



Protective gloves

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

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.

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.

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Eye/face protection



Goggles recommended during refilling

Body protection:



Chemical resistant protective suit.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Physical state	Liquid
Colour:	Not determined
Odour:	Characteristic
Odour threshold:	Not determined
Flammability	Not applicable
Lower and upper explosion limit	
Lower:	Not determined
Upper:	Not determined
Flash point:	Not Flammable
Auto-ignition temperature:	Product is not selfigniting.
Decomposition temperature:	Not determined
pH	Not determined
Viscosity:	
Kinematic viscosity	Not determined
Kinematic viscosity	
Dynamic:	Not determined

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Solubility

water:	Not determined
Partition coefficient n-octanol/water (log value)	Not determined
Vapour pressure:	Not determined
Density and/or relative density	
Density:	Not determined
Relative density	Not determined
Vapour density	Not determined

9.2 Other information**Appearance:****Form:** Liquid**Important information on protection of health and environment, and on safety.****Auto-ignition temperature:** Not determined**Explosive properties:** Product does not present an explosion hazard.**Cloud point / clarification point:****Oxidising properties** Not oxidising**Evaporation rate** Not determined**Information with regard to physical hazard classes**

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
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
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity**10.1 Reactivity** Stable under normal conditions**10.2 Chemical stability** Material is stable under normal conditions.**Thermal decomposition / conditions to be avoided** Stable at environment temperature.**10.3 Possibility of hazardous reactions** No dangerous reactions known.**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials** Oxidizing agents**10.6 Hazardous decomposition products** No dangerous decomposition products known.

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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:**

(CAS: 56-81-5) Glycerol

LD50, oral, 27 mg/kg bw (rat)

LD50, oral, 23 000 mg/kg bw (mouse)

LD50, oral, 10 000 mg/kg bw (guinea pig)

LC50 (1h), inhalation, rat: >11 mg/L

LD50, dermal, guinea pig: 56.750 mg/kg

ATE (Acute Toxicity Estimates)

Oral	LD50	>68,249-69,403 mg/kg (rat)
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CAS: 121-33-5 vanillin

Oral	LD50	1,580 mg/kg (rat)
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CAS: 121-32-4 3-ethoxy-4-hydroxybenzaldehyde

Oral	LD50	1,590 mg/kg (rat)
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CAS: 4940-11-8 2-ethyl-3-hydroxy-4-pyrone

Oral	LD50	1,150 mg/kg (rat)
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CAS: 64-17-5 ethanol

Oral	LD50	7,060 mg/kg (rat)
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Inhalative	LC50/4 h (vapour)	20,000 mg/l (rat)
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CAS: 120-14-9 Veratraldehyde

Oral	LD50	2,000 mg/kg (rat)
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CAS: 600-14-6 pentane-2,3-dione

Oral	LD50	3,000 mg/kg (rat)
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Skin corrosion/irritation Based on available data, the classification criteria are not met.**Serious eye damage/irritation** Based on available data, the classification criteria are not met.**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.**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.**Additional toxicological information:****Repeated dose toxicity**

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

(CAS: 57-55-6) Propane-1,2-diol

inhalation - systemic effects:

adverse reaction observed NOAEC 1 000 mg / ml (subchronic, rat)

inhalation - local effects:

Side effect observed LOAEC 160 mg / m³ (subchronic, rat)

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11.2 Information on other hazards**Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity:**

Ethanol, cas: 64-17-5

Fish toxicity LC50:> 10000 mg / l

Daphnia toxicity, CEE0:> 7800 mg / l

Bacterial toxicity (Ps putida) CEE0:> 6500 mg / l

Algal toxicity (SC. Quadricauda), CEE0:> 5000 mg / l

Algal toxicity (M. Acruginosa), CEE0:> 1450 mg / l

Propane-1,2-diol cas number: 57-55-6

LC50 Oncorhynchus mykiss, 96 h: 40.613 mg/l

LC50 Ceriodaphnia dubia, 48 h: 18.340 mg/l

LC50 Mysidopsis bahia, 96 h: 18.800 mg/l

ErC50 Selenastrum capricornutum, 96 h: 19.000 mg/l

ErC50 Skeletonema costatum, 96 h: 19.100 mg/l

Long-term toxicity to aquatic invertebrates

NOEC (7 days) 13.02 - 29 g/L

Toxicity to microorganisms

EC10 or NOEC for microorganisms 20 g/L

(CAS: 56-81-5) Glycerol

LC50 (96h), fish: 54.000 mg/L

EC50 (48h), daphnia magna: 1.955 mg/L

Toxicity to aquatic algae and cyanobacteria

EC50 for freshwater algae 2.9 g/L

Toxicity to microorganisms

EC50 for microorganisms 10 g/L

EC10 or NOEC for microorganisms 10 g/L

12.2 Persistence and degradability No further relevant information available.**12.3 Bioaccumulative potential**

(CAS: 121-33-5) Vanillin

BCF = 6

Pow Log = 1.37

12.4 Mobility in soil

CAS: 121-33-5 Vanillin

Koc = 130

Absorption is high

Henry = 2.128E-4 Pa · m³ / mol

It is not dry soil

It is not wet soil

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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 No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation



Dispose according to National Regulations.



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

Contact manufacturer for recycling information.

Uncleaned packaging:

Recommendation:

Disposal must be made according to official regulations.

Packaging may be reused or recycled after cleaning.

SECTION 14: Transport information

14.1 UN number or ID number

ADR, IMDG, IATA

Void

14.2 UN proper shipping name

ADR, IMDG, IATA

Void

14.3 Transport hazard class(es)

ADR, ADN, IMDG, IATA
Class

Void

14.4 Packing group

ADR, IMDG, IATA

Void

14.5 Environmental hazards:

Not applicable.

14.6 Special precautions for user

Not applicable.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

UN "Model Regulation":

Void

SECTION 15: Regulatory information

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

REACH Regulation 1907/2006/EC

Regulation (EU) 2020/878

CLP Regulation 1272/2008/EC

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Directive 98/24/EC on the protection of health and safety of workers from the risks related to chemicals agents at work.

Council Directive 94/33/EC on the protection of young people at work, as ammended.

Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, as ammended

Labelling according to Regulation (EC) No 1272/2008 Void

Hazard pictograms Void

Signal word Void

Hazard statements Void

Precautionary statements

P102 Keep out of reach of children.

Directive 2012/18/EU

Named dangerous substances - ANNEX I Does not contain named substances.

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.

National regulations:

Other regulations, limitations and prohibitive regulations

Substances of very high concern (SVHC) according to REACH, Article 57

It doesn't contain substances of very high concern (SVHC).

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.

Relevant phrases

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

Training hints

Suitable training on safety in handling, storing and converting the product should be given to the employees based on all the existing information.

Department issuing SDS:

SUSTCHEM SUSTCHEM S.A.
REACH & Chemical Services Department
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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

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IATA: International Air Transport Association
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)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Acute Tox. 4: Acute toxicity – Category 4
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1B: Skin sensitisation – Category 1B
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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