

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### NATURAL 4-HDROXY-2,5-DIMETHYL-3(2H)- FURANONE 20% IN PG

Revision date: 01/09/2023

Product code: 317430US

Page 1 of 8

#### 1. Identification

##### Product identifier

NATURAL 4-HDROXY-2,5-DIMETHYL-3(2H)- FURANONE 20% IN PG

##### Recommended use of the chemical and restrictions on use

###### Use of the substance/mixture

For Flavour use for food and feed only

##### Details of the supplier of the safety data sheet

Company name:	Axxence Aromatic GmbH	
Street:	Tackenweide 28	
Place:	D-46446 Emmerich am Rhein	
Telephone:	+ 49 2822 68561 0	Telefax: + 49 2822 68561 39
e-mail:	info@axxence.com	
Contact person:	Andreas Goertz	Telephone: + 49 2822 68561 37
e-mail:	andreas.goertz@axxence.com	
Internet:	www.axxence.de	
Responsible Department:	QM - Regulatory Affairs	

**Emergency phone number:** +49 2822 68561 99

#### 2. Hazard(s) identification

##### Classification of the chemical

###### 29 CFR Part 1910.1200

Skin corrosion/irritation: Skin Corr. 1B  
 Serious eye damage/eye irritation: Eye Dam. 1  
 Respiratory or skin sensitization: Skin Sens. 1

##### Label elements

###### 29 CFR Part 1910.1200

**Signal word:** Danger

**Pictograms:**



##### **Hazard statements**

Causes severe skin burns and eye damage  
 May cause an allergic skin reaction

##### **Precautionary statements**

Do not breathe dust/fume/gas/mist/vapors/spray.  
 Wash hands thoroughly after handling.  
 Contaminated work clothing must not be allowed out of the workplace.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 If swallowed: Rinse mouth. Do NOT induce vomiting.  
 If on skin: Wash with plenty of Wash with plenty of water/soap..  
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 Wash contaminated clothing before reuse.  
 If inhaled: Remove person to fresh air and keep comfortable for breathing.  
 Immediately call a poison center/doctor.  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
 Continue rinsing.

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**NATURAL 4-HDROXY-2,5-DIMETHYL-3(2H)- FURANONE 20% IN PG**

Revision date: 01/09/2023

Product code: 317430US

Page 2 of 8

Immediately call a poison center/doctor.  
Store locked up.  
Dispose of contents/container to Organic waste.

**Hazards not otherwise classified**

No information available.

**3. Composition/information on ingredients****Mixtures****Hazardous components**

CAS No	Components	Quantity
57-55-6	PROPYLENE GLYCOL	77,5 - 80 %
3658-77-3	NATURAL 4-HYDROXY-2,5-DIMETHYL-3(2H)-FURANONE	20 - 22,5 %

**4. First-aid measures****Description of first aid measures****General information**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

**After inhalation**

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

**After contact with skin**

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

**After contact with eyes**

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**

Rinse mouth immediately and drink 1 glass of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

**Most important symptoms and effects, both acute and delayed**

No information available.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**Co-ordinate fire-fighting measures to the fire surroundings.  
Extinguishing powder / Carbon dioxide (CO<sub>2</sub>) / Water spray jet**Specific hazards arising from the chemical**

Non-flammable.

**Special protective equipment and precautions for fire-fighters**

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

**Additional information**

Suppress gases/vapors/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**6. Accidental release measures**

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according to 29 CFR 1910.1200(g)

### NATURAL 4-HDROXY-2,5-DIMETHYL-3(2H)- FURANONE 20% IN PG

Revision date: 01/09/2023

Product code: 317430US

Page 3 of 8

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

##### General advice

Provide adequate ventilation. Do not breathe gas/fume/vapor/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

##### Environmental precautions

Do not allow to enter into surface water or drains.

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

##### For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

##### Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

##### Reference to other sections

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

## 7. Handling and storage

#### Precautions for safe handling

##### Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapor/spray.

##### Advice on protection against fire and explosion

No special fire protection measures are necessary.

##### Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

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

##### Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

##### Hints on joint storage

No special measures are necessary.

## 8. Exposure controls/personal protection

#### Control parameters

#### Exposure controls



##### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fume/vapor/spray.

##### Individual protection measures, such as personal protective equipment

## Safety Data Sheet

according to 29 CFR 1910.1200(g)

### NATURAL 4-HDROXY-2,5-DIMETHYL-3(2H)- FURANONE 20% IN PG

Revision date: 01/09/2023

Product code: 317430US

Page 4 of 8

#### Eye/face protection

Suitable eye protection: goggles.

#### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. 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. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Skin protection

Use of protective clothing.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### 9. Physical and chemical properties

#### Information on basic physical and chemical properties

Physical state:	Liquid	
Color:	light yellow	
Odor:	characteristic	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		>184 °C
Flammability		
Solid/liquid:		not applicable
Gas:		not applicable
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		>104 °C
Auto-ignition temperature:		not determined
Decomposition temperature:		not determined
pH-Value:		not determined
Water solubility: (at 20 °C)		~800 g/L
Solubility in other solvents		
not determined		
Partition coefficient n-octanol/water:		not determined
Vapor pressure: (at 20 °C)		0,11 hPa
Vapor pressure: (at 50 °C)		1,81 hPa
Density:		1,09 g/cm <sup>3</sup>
Relative vapour density:		not determined

#### Other information

##### Information with regard to physical hazard classes

Explosive properties

not hazard of explosion according to EU A.14

Oxidizing properties

The product is not: oxidising.

##### Other safety characteristics

Evaporation rate:	not determined
Solvent content:	80%
Solid content:	20,00 %

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according to 29 CFR 1910.1200(g)

### NATURAL 4-HDROXY-2,5-DIMETHYL-3(2H)- FURANONE 20% IN PG

Revision date: 01/09/2023

Product code: 317430US

Page 5 of 8

#### 10. Stability and reactivity

##### Reactivity

No hazardous reaction when handled and stored according to provisions.

##### Chemical stability

The product is stable under storage at normal ambient temperatures.

##### Possibility of hazardous reactions

No known hazardous reactions.

##### Conditions to avoid

none/none

##### Incompatible materials

No information available.

##### Hazardous decomposition products

No known hazardous decomposition products.

#### 11. Toxicological information

##### Information on toxicological effects

##### **Acute toxicity**

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

##### **ATEmix calculated**

ATE (oral) 8040,0 mg/kg

CAS No	Components					
	Exposure route	Dose		Species	Source	Method
57-55-6	PROPYLENE GLYCOL					
	oral	LD50 mg/kg	22000	Rat	REACH registration	
	dermal	LD50 mg/kg	20800	Rabbit	GESTIS	
3658-77-3	NATURAL 4-HYDROXY-2,5-DIMETHYL-3(2H)-FURANONE					
	oral	LD50 mg/kg	1608	Mouse	REACH registration	OECD Guideline 401

##### **Irritation and corrosivity**

Causes severe skin burns and eye damage

Causes serious eye damage

##### **Sensitizing effects**

May cause an allergic skin reaction (NATURAL 4-HYDROXY-2,5-DIMETHYL-3(2H)-FURANONE)

##### **Carcinogenic/mutagenic/toxic effects for reproduction**

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

##### **Specific target organ toxicity (STOT) - single exposure**

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

##### **Specific target organ toxicity (STOT) - repeated exposure**

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

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): No ingredient of this mixture is listed.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

##### **Aspiration hazard**

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

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### NATURAL 4-HDROXY-2,5-DIMETHYL-3(2H)- FURANONE 20% IN PG

Revision date: 01/09/2023

Product code: 317430US

Page 6 of 8

#### Information on other hazards

##### **Endocrine disrupting properties**

No information available.

##### **Further information**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

## 12. Ecological information

#### Ecotoxicity

The product is not: Ecotoxic.

#### Persistence and degradability

The product has not been tested.

#### Bioaccumulative potential

The product has not been tested.

#### Mobility in soil

The product has not been tested.

#### Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### Other adverse effects

No information available.

##### **Further information**

Avoid release to the environment.

## 13. Disposal considerations

#### Waste treatment methods

##### **Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

##### **Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled.

## 14. Transport information

#### **U.S. DOT 49 CFR 172.101**

##### UN number or ID number:

UN 1760

##### Proper shipping name:

CORROSIVE LIQUIDS, N.O.S.

##### Transport hazard class(es):

8

##### Packing group:

II

Hazard label:

8



#### **Marine transport (IMDG)**

##### UN number or ID number:

UN 1760

##### UN proper shipping name:

CORROSIVE LIQUID, N.O.S.

##### Transport hazard class(es):

8

##### Packing group:

II

Hazard label:

8

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according to 29 CFR 1910.1200(g)

### NATURAL 4-HDROXY-2,5-DIMETHYL-3(2H)- FURANONE 20% IN PG

Revision date: 01/09/2023

Product code: 317430US

Page 7 of 8



Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-A, S-B

**Air transport (ICAO-TI/IATA-DGR)**

<b>UN number or ID number:</b>	UN 1760
<b>UN proper shipping name:</b>	CORROSIVE LIQUID, N.O.S.
<b>Transport hazard class(es):</b>	8
<b>Packing group:</b>	II
Hazard label:	8



Special Provisions:	A3 A803
Limited quantity Passenger:	0.5 L
Passenger LQ:	Y840
Excepted quantity:	E2
IATA-packing instructions - Passenger:	851
IATA-max. quantity - Passenger:	1 L
IATA-packing instructions - Cargo:	855
IATA-max. quantity - Cargo:	30 L

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**Special precautions for user**

Warning: strongly corrosive.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not applicable

### 15. Regulatory information

**U.S. Regulations**

**National regulatory information**

SARA Section 311/312 Hazards:

NATURAL 4-HYDROXY-2,5-DIMETHYL-3(2H)-FURANONE (3658-77-3): Immediate (acute) health hazard

**State Regulations**

**Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

### 16. Other information

**Changes**

Revision date: 09.01.2023

Revision No: 103

This data sheet contains changes from the previous version in section(s): 14.

**Abbreviations and acronyms**

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

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according to 29 CFR 1910.1200(g)

**NATURAL 4-HDROXY-2,5-DIMETHYL-3(2H)- FURANONE 20% IN PG**

Revision date: 01/09/2023

Product code: 317430US

Page 8 of 8

IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized 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  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
CLP: Classification, labelling and Packaging  
REACH: Registration, Evaluation and Authorization of Chemicals  
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
UN: United Nations  
DNEL: Derived No Effect Level  
DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration  
ATE: Acute toxicity estimate  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate  
NOEC: No Observed Effect Concentration  
BCF: Bio-concentration factor  
PBT: persistent, bioaccumulative, toxic  
vPvB: very persistent, very bioaccumulative  
RID: Regulations concerning the international carriage of dangerous goods by rail  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)  
EmS: Emergency Schedules  
MFAG: Medical First Aid Guide  
ICAO: International Civil Aviation Organization  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
VOC: Volatile Organic Compounds  
SVHC: Substance of Very High Concern  
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>  
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

**Other data**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*