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

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## **Gold varnish**

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

#### 1.1 Product identifier

#### Trade name/designation:

Gold varnish

# 1.2 Relevant identified uses of the substance or mixture and uses advised against Use of the substance/mixture:

Paint or Paint related material.

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

Manufacturer/Supplier:

#### **Deffner & Johann GmbH**

Mühläckerstraße 13 D-97520 Röthlein

Tel. +49 9723 9350-0 Fax +49 9723 9350-25 E-Mail info@deffner-johann.de

## 1.4 Emergency phone number

Tel. +49 9723 9350-0 (Mo. - Fr.: 8:00 - 15:00 Uhr)

## **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
STOT-single exposure (STOT SE 3)	H335: May cause respiratory irritation.	Calculation
Flammable liquids (Flam. Liq. 3)	H226: Flammable liquid and vapour.	Test data
STOT-single exposure (STOT SE 3)	H336: May cause drowsiness or dizziness.	Calculation
Hazardous to the aquatic environment (Aquatic Chronic 3)	H412: Harmful to aquatic life with long lasting effects.	Calculation

## 2.2 Label elements

# Labelling according to Regulation (EC) No. 1272/2008 [CLP] Hazard pictograms:







**GHS07** Exclamation mark

Signal word: Warning

## Hazard components for labelling:

Xylene; Solvent naphtha (petroleum), light arom.; 1-Methoxypropan-2-ol; n-Butyl acetate

Hazard statements for physical hazards		
H226	Flammable liquid and vapour.	

Hazard statements for health hazards		
H335	May cause respiratory irritation.	
May cause drowsiness or dizziness.		

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Hazard statements for environmental hazards		
H412 Harmful to aquatic life with long lasting effects.		

## Supplemental hazard information (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements - General		
P102	Keep out of reach of children.	

Precautionary statements - Prevention		
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smo-king.	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.	
P273	Avoid release to the environment.	

Precautionary statements - Response				
P302+P352	2 IF ON SKIN: Wash with plenty of soap and water.			
P314	Get medical advice/attention if you feel unwell.			

Precautionary statements - Disposal		
P501	Dispose of contents/container to an appropriate recycling or disposal facility.	

## 2.3 Other hazards

## Adverse physicochemical effects:

In use may form flammable/explosive vapour-air mixture.

#### **Adverse environmental effects:**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## **SECTION 3: Composition / information on ingredients**

## 3.2 Mixtures

## **Description:**

gold-Pigment in Resin solution

## Ingredients:

Product identifiers	Substance name Classification according to Regulation (EC) No. 1272/2008 [CLP]	Content	
CAS No.: 64742-95-6 EC No.: 265-199-0 REACH No.: 01-2119455851-35	Solvent naphtha (petroleum), light arom. STOT SE 3, Flam. Liq. 3, Asp. Tox. 1, Aqua. Chronic 2   Danger H226-H304-H335-H336-H411-EUH066	5 – 15 Wt %	
CAS No.: 107-98-2 EC No.: 203-539-1 REACH No.: 01-2119457435-35	1-Methoxypropan-2-ol STOT SE 3, Flam. Liq. 3	3 - 7 Wt %	
CAS No.: 123-86-4 EC No.: 204-658-1 REACH No.: 01-2119485493-29	n-Butyl acetate STOT SE 3, Flam. Liq. 3	3 - 7 Wt %	
CAS No.: 1330-20-7 EC No.: 215-535-7 REACH No.: 01-2119486136-34	<b>Xylene</b> STOT SE 3, Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT RE 2, Asp. Tox. 1	3 - 7 Wt %	

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

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## **Gold varnish**

## **SECTION 4:** First aid measures

## 4.1 Description of first aid measures

#### General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing immediately. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

#### Following inhalation:

Provide fresh air. Remove person to fresh air and keep comfortable for breathing. Get medical advice/ attention if you feel unwell.

#### In case of skin contact:

Remove contaminated, saturated clothing immediately. Wash immediately with: Water and soap. In case of skin irritation, consult a physician.

#### After eye contact:

Do not subject to friction. 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. Do NOT induce vomiting. Get immediate medical advice/attention.

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

Drowsiness, Dizziness. May cause respiratory irritation. May be harmful if inhaled.

# **4.3 Indication of any immediate medical attention and special treatment needed**Treat symptomatically.

## **SECTION 5: Firefighting measures**

## 5.1 Extinguishing media

#### Suitable extinguishing media:

Water spray jet, alcohol resistant foam, extinguishing powder, carbon dioxide (CO<sub>2</sub>).

## 5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapour. Vapours can form explosive mixtures with air.

#### **Hazardous combustion products:**

In case of fire may be liberated: carbon oxides (COx); gases/vapours, toxic.

#### **5.3 Advice for firefighters**

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

#### **5.4 Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## **SECTION 6: Accidental release measures**

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

## 6.1.1 For non-emergency personnel

#### Personal precautions:

Keep away from sources of ignition - No smoking. Do not breathe gas/vapour/aerosol. Avoid contact with skin, eyes and clothes. Remove persons to safety.

### Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection. See section 8.

## 6.1.2 For emergency responders

## **Personal protection equipment:**

Personal protection equipment: see section 8.

## 6.2 Environmental precautions

Do not allow to enter into surface water or drains.

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## 6.3 Methods and material for containment and cleaning up

#### For containment:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal.

## For cleaning up:

Solvents/Thinner.

## **6.4 Reference to other sections**

Safe handling: see section 7.

Personal protection equipment: see section 8.

Disposal: see section 13.

#### 6.5 Additional information

No data available.

## **SECTION 7: Handling and storage**

## 7.1 Precautions for safe handling

#### **Protective measures**

## Advices on safe handling:

Provide adequate ventilation. Do not breathe gas/vapour/aerosol. Avoid contact with skin, eyes and clothes. Wear personal protection equipment (refer to section 8).

#### Fire prevent measures:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Take precautionary measures against static discharge.

### **Environmental precautions:**

Discharge into the environment must be avoided.

#### Advices on general occupational hygiene

Wash hands before breaks and after work. When using do not eat, drink or smoke. Take off contaminated clothing and wash it before reuse.

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

## Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place. Protect from sunlight.

#### Requirements for storage rooms and vessels:

Floors should be impervious, resistant to liquids and easy to clean. Keep/Store only in original container.

#### Hints on storage assembly:

Keep away from combustible material.

#### 7.3 Specific end use(s)

#### **Recommendation:**

Paint or Paint related material.

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## **SECTION 8: Exposure controls / Personal protection**

## 8.1 Control parameters

## 8.1.1 Occupational exposure limit values

Limit value type (country)	Substance name	① Long-term occupational exposure limit value		
, , , , , , , , , , , , , , , , , , ,		② Short-term occupational exposure limit value ③ Instantaneous value		
		Monitoring and observation processes		
		⑤ Remark		
WEL (GB)	1-Methoxypropan-2-ol CAS No.: 107-98-2	① 100 ppm (375 mg/m³) ② 150 ppm (560 mg/m³)		
IOELV (EU)	1-Methoxypropan-2-ol CAS No.: 107-98-2	<ol> <li>100 ppm (375 mg/m³)</li> <li>150 ppm (568 mg/m³)</li> <li>(May be absorbed through the skin.)</li> </ol>		
MEL/OES (GB)	n-Butyl acetate CAS No.: 123-86-4	① 150 ppm (724 mg/m³) ② 200 ppm (966 mg/m³)		
IOELV (EU)	Xylene CAS No.: 1330-20-7	<ol> <li>50 ppm (221 mg/m³)</li> <li>100 ppm (442 mg/m³)</li> <li>(May be absorbed through the skin.)</li> </ol>		
WEL (GB)	Xylene CAS No.: 1330-20-7	① 50 ppm (220 mg/m³) ② 100 ppm (441 mg/m³)		
IOELV (EU)	Ethylbenzene CAS No.: 100-41-4	<ol> <li>100 ppm (442 mg/m³)</li> <li>200 ppm (884 mg/m³)</li> <li>(May be absorbed through the skin.)</li> </ol>		
WEL (GB)	Ethylbenzene CAS No.: 100-41-4	<ol> <li>100 ppm (441 mg/m³)</li> <li>125 ppm (552 mg/m³)</li> <li>(May be absorbed through the skin.)</li> </ol>		
WEL (GB)	C7-C8 Aromatics	① 500 mg/m³ ⑤ (Aromatics)		
WEL (GB)	mesitylene CAS No.: 108-67-8	① 25 ppm (125 mg/m³)		
IOELV (EU)	mesitylene CAS No.: 108-67-8	① 20 ppm (100 mg/m³)		
WEL (GB)	1,2,4-trimethylbenzene CAS No.: 95-63-6	① 25 ppm (125 mg/m³)		
IOELV (EU)	1,2,4-trimethylbenzene CAS No.: 95-63-6	① 20 ppm (100 mg/m³)		

## 8.1.2 Biological limit values

Limit value type (country)	Substance name		<ul><li>① Parameter</li><li>② Test material</li><li>③ Time of sampling</li><li>④ Remark</li></ul>
BMGV (GB)	-	mol creatini ne	① methyl hippuric acid ② urine ③ end of exposure or end of shift

## 8.1.3 DNEL-/PNEC-values

No data available.

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## 8.2 Exposure controls

## 8.2.1 Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. Provide adequate ventilation as well as local exhaustion at critical locations. / Technical ventilation of workplace

## 8.2.2 Personal protection equipment







#### Eye/face protection:

Eye glasses with side protection (EN 166).

#### Skin protection:

Tested protective gloves must be worn (EN 374).

Suitable material: NBR (Nitrile rubber)

Material thickness: ≥ 0,4 mm

Breakthrough time (maximum wearing time): ≥ 480 min

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. In the case of wanting to use the gloves again, clean them before taking off and air them well.

#### Respiratory protection:

Usually no personal respirative protection necessary. Provide adequate ventilation. If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Use appropriate respiratory protection. Combination filtering device (EN 14387), Filter type A-P2.

#### Other protection measures:

Wear anti-static footwear and clothing

## 8.2.3 Environmental exposure controls

No data available.

## 8.3 Additional information

No data available.

## **SECTION 9: Physical and chemical properties**

## 9.1 Information on basic physical and chemical properties

Physical state: liquid Colour: golden Odour: like Solvent

#### Safety relevant basic data

Parameter		at	Method	Remark
рН	not applicable			
Melting point	not determined			
Freezing point	not determined			
Initial boiling point and boiling range	not determined			Assessment: > 35 °C
Decomposition temperature	not determined			
Flash point	≥ 23 °C			
Evaporation rate	not determined			
Ignition temperature	420 °C			
Upper/lower flammability or explosive limits	1.2 - 7.5 Vol-%			methyl isobutyl ketone
Vapour pressure	≈ 21 hPa	20 °C		
Vapour density	not determined			
Relative density	not determined			
Bulk density	not applicable			

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Parameter		at	Method	Remark
Water solubility				insoluble
Partition coefficient: n-octanol/ water	not determined			
Dynamic viscosity	not determined			
Kinematic viscosity	not determined			

#### 9.2 Other information

No data available.

## **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

Flammable liquid and vapour.

## 10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

## 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions. Possibility of hazardous reactions/Exothermic reaction with: Oxidising agent, Alkali (lye), Acids.

### 10.4 Conditions to avoid

Protect against direct sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

## 10.5 Incompatible materials

No data available.

## 10.6 Hazardous decomposition products

No known hazardous decomposition products.

In case of fire may be liberated: carbon oxides (COx); gases/vapours, toxic.

#### **Further information**

No data available.

## **SECTION 11: Toxicological information**

## 11.1 Information on toxicological effects

CAS No.	Substance name	Toxicological information
107-98-2	1-Methoxypropan-2-ol	LC <sub>50</sub> inhalative: 10,000 mg/L 5 h (Rat)
123-86-4	n-Butyl acetate	<b>LD<sub>50</sub> oral:</b> 10,800 mg/kg (Ratte)
		LD <sub>50</sub> dermal: 17,600 mg/kg (Kaninchen)
		LC <sub>50</sub> inhalative: 1.85 mg/L 4 h (Ratte)
1330-20-7	Xylene	<b>LD<sub>50</sub> dermal:</b> >1,700 mg/kg (Rabbit)
		LC <sub>50</sub> inhalative: 21.7 mg/L 4 h (Rat)

#### Acute oral toxicity:

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

## Acute dermal toxicity:

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

#### Acute inhalation toxicity:

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

#### Skin corrosion/irritation:

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

Repeated exposure may cause skin dryness or cracking.

## 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.

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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:

May cause respiratory irritation. May cause drowsiness or dizziness. Inhalation of vapours or spray/mists (Content > Occupational exposure limit values): May cause damage the named organs: liver, kidneys, central nervous system

#### 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 information:**

No data available.

## **SECTION 12: Ecological information**

#### 12.1 Toxicity

#### Aquatic toxicity:

Harmful to aquatic life with long lasting effects.

## 12.2 Persistence and degradability

### **Biodegradation:**

Some of the components are poorly biodegradable. gold-Pigment: The methods for determining the biological degradability are not applicable to inorganic substances.

#### 12.3 Bioaccumulative potential

## **Accumulation / Evaluation:**

No indication of bioaccumulation potential.

#### 12.4 Mobility in soil

No data available.

#### 12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## 12.6 Other adverse effects

No data available.

## **SECTION 13: Disposal considerations**

## 13.1 Waste treatment methods

## **Waste treatment options**

#### **Appropriate disposal / Product:**

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

## Appropriate disposal / Package:

Completely emptied packages can be recycled.

#### Other disposal recommendations:

The allocation of waste code numbers / waste names must be carried out in accordance with the European Waste Catalogue (EWC). Collect in closed and suitable containers for disposal. Do not allow to enter into surface water or drains.

### 13.2 Additional information

Waste for disposal is to be classified and labelled.

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## **Gold varnish**

## **SECTION 14: Transport information**

Land transport (ADR / RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO- TI / IATA-DGR)
14.1 UN-No.			
UN 1263	UN 1263	UN 1263	UN 1263
14.2 UN proper shi	pping name		
Paint	Paint	Paint	Paint
14.3 Transport haz	ard class(es)		_
	*	•	•
3	3	3	3
14.4 Packing group	)		
III	III	III	III
14.5 Environmenta	l hazards		
No	No	No	No
14.6 Special preca	utions for user	·	
No data available.			

## 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not determined

### **Additional information:**

Transport as "Limited Quantity" according to chapter 3.4 ADR/RID. Transport as "Excepted Quantity" according to chapter 3.5 ADR/RID.

## **SECTION 15: Regulatory information**

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

## 15.1.1 EU legislation

#### Other EU regulations:

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

## 15.1.2 National regulations

No data available.

## 15.2 Chemical Safety Assessment

No data available.

## 15.3 Additional information

No data available.

## **SECTION 16: Other information**

#### 16.1 Indication of changes

No data available.

### 16.2 Abbreviations and acronyms

See overview table at www.euphrac.eu

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## 16.3 Key literature references and sources for data

European Chemicals Agency (ECHA): http://www.echa.europa.eu ECHA, C&L Inventory: http://echa.europa.eu/information-on-chemicals/cl-inventory-database ECHA, Registered substances: http://echa.europa.eu/information-on-chemicals/registered-substances GESTIS (Gefahrstoffinformationssystem der DGUV): http://www.dguv.de/ifa/GESTIS/index.jsp Hörath Gefährliche Stoffe und Gemische, 8. Auflage, Dr. Angela Schulz Safety data sheets of the manufacturers

# 16.4 Classification for mixtures and used evaluation method according to regulation (EC) No. 1272/2008 [CLP]

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

Hazard classes and hazard categories		Classification procedure
STOT-single exposure (STOT SE 3)	H335: May cause respiratory irritation.	Calculation
Flammable liquids (Flam. Liq. 3)	H226: Flammable liquid and vapour.	Test data
STOT-single exposure (STOT SE 3)	H336: May cause drowsiness or dizziness.	Calculation
Hazardous to the aquatic environment (Aquatic Chronic 3)	H412: Harmful to aquatic life with long lasting effects.	Calculation

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

Hazard statements		
H226	Flammable liquid and vapour.	
H304	May be fatal if swallowed and enters airways.	
H312	Harmful in contact with skin.	
H315	Causes skin irritation.	
H319	Causes serious eye irritation.	
H332	Harmful if inhaled.	
H335	May cause respiratory irritation.	
H336	May cause drowsiness or dizziness.	
H373	May cause damage to organs through prolonged or repeated exposure.	
H411	Toxic to aquatic life with long lasting effects.	

## 16.6 Training advice

No data available.

#### 16.7 Additional information

The information in this safety data sheet has been established to our best knowledge and was upto-date at time of revision. The information is intended to give you advice about the safe handling of the product for storage, processing, transport and disposal. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.