

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

1.1 Product identifier

Trade name/designation

9710000 Plant hard wax, Classic

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

Relevant identified uses

* Plating agent

1.3 Details of the supplier of the safety data sheet

Supplier

AURO Pflanzenchemie AG
Alte Frankfurter Straße 211 Telephone: +49 531 28141-0
38122 Braunschweig Telefax: +49 531 28141-72
Deutschland E-mail: info@auro.de
Website: www.auro.de

Department responsible for information

E-mail (competent person) msds@auro.de

1.4 Emergency telephone number

Emergency telephone number +44 1544388535
Only available during office hours.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

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

Flam. Liq. 3; flammable liquids; H226 Flammable liquid and vapour.

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

* Aquatic Acute 1; Hazardous to the aquatic environment; H400 Very toxic to aquatic life.

* Aquatic Chronic 1; Hazardous to the aquatic environment; H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

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

Hazard pictograms



GHS02 GHS07 GHS09

Signal word

Warning

Hazard statements

H226 Flammable liquid and vapour.

H317 May cause an allergic skin reaction.

* H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

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

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P273 Avoid release to the environment.

P280 Wear protective gloves and eye/face protection.

P370 + P378 In case of fire: Use extinguishing powder or sand to extinguish.

P391 Collect spillage.

P403 + P235 Store in a well-ventilated place. Keep cool.

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P501 Dispose of contents/container to industrial incineration plant.

Hazard components for labelling

- * turpentine, oil
 Orange, sweet, ext.
- * Reaction mass of 1-Methyl-4-(1-methylethenyl)cyclohexene and 1-Methyl-4-(1-methylethylidene)-cyclohexene and 1-methyl-4-(propan-2-yl)cyclohexa-1,3-diene

Supplemental hazard information

not applicable

2.3 Other hazards

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

Hazardous ingredients

| CAS No. EC No. Index No. | Substance name REACH No. Classification according to Regulation (EC) No 1272/2008 [CLP] | weight-% |
|---|---|---------------|
| * - 939-409-2 - | Reaction mass of 1-Methyl-4-(1-methylethenyl)cyclohexene and 1-Methyl-4-(1-methylethylidene)-cyclohexene and 1-methyl-4-(propan-2-yl)cyclohexa-1,3-diene 01-2119969963-17-xxxx Flam. Liq. 3 H226 / Asp. Tox. 1 H304 / Skin Sens. 1B H317 / Aquatic Acute 1 H400 (M = 1,00) / Aquatic Chronic 1 H410 (M = 1,00) | 25,0 < 35,0 |
| * 8028-48-6 232-433-8 - | Orange, sweet, ext. 01-2119493353-35-0003 Flam. Liq. 3 H226 / Asp. Tox. 1 H304 / Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411 | 3,00 < 5,00 |
| * 8006-64-2 932-349-8 650-002-00-6 | turpentine, oil 01-2119553060-53-0007 Flam. Liq. 3 H226 / Acute Tox. 4 H302 / Asp. Tox. 1 H304 / Acute Tox. 4 H312 / Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Eye Irrit. 2 H319 / Acute Tox. 4 H332 / Aquatic Chronic 2 H411 | 3,00 < 5,00 |
| * 22464-99-9 245-018-1 - | 2-ethylhexanoic acid, zirconium salt (Balsam-Terpentinöl) 01-2119979088-21 Repr. 2 H361d | 0,100 < 0,150 |

Remark

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

Self-protection of the first aider

First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

In all cases of doubt, or when symptoms persist, seek medical advice.

4.3 Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam, Carbon dioxide (CO₂), Powder, spray mist, (water)

Unsuitable extinguishing media

Strong water jet

5.2 Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3 Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ventilate affected area. Do not breathe vapours.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

For containment

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

For cleaning up

Clean using cleansing agents. Do not use solvents.

6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: refer to section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling

Avoid contact with skin, eyes and clothes. Avoid respiration of swarf. Personal protection equipment: see section 8 Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Advices on general occupational hygiene

When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions

Keep container tightly closed. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3 Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

| CAS No. | Substance name | Source | Long-term /short-term (Spitzenbegrenzung) |
|-------------|-----------------|--------|---|
| * 8006-64-2 | turpentine, oil | WEL | 566 / 850 (-) mg/m ³ |

Additional information

Long-term: Long-term occupational exposure limit value

short-term: short-term occupational exposure limit value

Biological limit values

No data available

8.2 Exposure controls

Provide good ventilation. This can be achieved with local or room suction.

Personal protection equipment

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Hand protection

Suitable material: NBR (Nitrile rubber)

Thickness of the glove material $\geq 0,4$ mm

Breakthrough time ≥ 480 min

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. Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin.

Recommended glove articles: EN ISO 374

Skin protection

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Eye glasses with side protection

Body protection

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state liquid

Colour refer to label

Safety characteristics

Odour characteristic

Odour threshold not determined

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| | |
|---|--------------------------|
| pH | not determined |
| Melting point/freezing point | not determined |
| Initial boiling point and boiling range | not determined |
| Flash point | 53 °C |
| Evaporation rate at 20°C | not determined |
| Burning time | not applicable |
| Lower explosion limit at 20°C | not determined |
| Upper explosion limit at 20°C | not determined |
| * Vapour pressure at 20°C | 2,431 mbar |
| * Density at 20°C | 0,905 kg/l |
| Water solubility at 20°C | practically insoluble |
| Partition coefficient: n-octanol/water | see section 12 |
| Ignition temperature in °C | not determined |
| Decomposition temperature | not determined |
| * Viscosity | > 700 mm ² /s |
| Explosive properties | not relevant |
| Oxidising properties | not relevant |

9.2 Other information

not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3 Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4 Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: Carbon dioxide (CO₂), Carbon monoxide, smoke.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

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

Orange, sweet, ext.

LD50: oral (Rat): > 5.000 mg/kg

LD50: oral (Rat): > 5.000 mg/kg

* **turpentine, oil**

LD50: oral (Rat): = 3.956 mg/kg

* LD50: oral (Rat): = 3.956 mg/kg

Skin corrosion/irritation

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

Serious eye damage/eye irritation

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

Respiratory or skin sensitisation

May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

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.

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: Headache, Dizziness, fatigue, amyosthenia, Dizziness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

SECTION 12: Ecological information

12.1 Toxicity

* Very toxic to aquatic life with long lasting effects.

Acute (short-term) fish toxicity

* **Orange, sweet, ext.**

LC50: (Pimephales promelas (fathead minnow)): = 0,7 mg/L (96 h)

Method: OECD 203

Reaction mass of 1-Methyl-4-(1-methylethenyl)cyclohexene and 1-Methyl-4-(1-methylethylidene)-cyclohexene and 1-methyl-4-(propan-2-yl)cyclohexa-1,3-diene

* LC50: (Danio rerio (zebrafish)): 1,3 mg/L (96 h)

Acute (short-term) toxicity to algae and cyanobacteria

* **Orange, sweet, ext.**

ErC50: (Desmodesmus subspicatus): = 150 mg/L (72 h)

Method: OECD 201

Reaction mass of 1-Methyl-4-(1-methylethenyl)cyclohexene and 1-Methyl-4-(1-methylethylidene)-cyclohexene and 1-methyl-4-(propan-2-yl)cyclohexa-1,3-diene

* ErC50: (Desmodesmus subspicatus): 0,42 mg/L (72 h)

Acute (short-term) toxicity to crustacea

* **Orange, sweet, ext.**

EC50 (Daphnia magna (Big water flea)): = 0,67 mg/L (48 h)

Method: OECD 202

Reaction mass of 1-Methyl-4-(1-methylethenyl)cyclohexene and 1-Methyl-4-(1-methylethylidene)-cyclohexene and 1-methyl-4-(propan-2-yl)cyclohexa-1,3-diene

* EC50 (Daphnia magna (Big water flea)): 0,48 mg/L (48 h)

12.2 Persistence and degradability

Orange, sweet, ext.

Biodegradation = 72 % (28 d)

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water ≥ 4

* Partition coefficient: n-octanol/water = 4,88

12.4 Mobility in soil

No information 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 information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product/Packaging disposal

Do not empty into drains; dispose of this material and its container in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Waste codes/waste designations according to EWC/AVV

080111* - Waste paint and varnish containing organic solvents or other dangerous substances

Other disposal recommendations

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1 UN number

UN 1263

14.2 UN proper shipping name

Land transport (ADR/RID)

Paint

Sea transport (IMDG)

Paint

Air transport (ICAO-TI / IATA-DGR)

Paint

14.3 Transport hazard class(es)

Land transport (ADR/RID)

3
for packages < = 450 litres: Kein Gut der Klasse 3

Sea transport (IMDG)

3
for packages < = 450 litres: Transport in accordance with 2.3.2.5 of the IMDG Code

Air transport (ICAO-TI / IATA-DGR)

3

14.4 Packing group

Land transport (ADR/RID)

III

Sea transport (IMDG)

III

Air transport (ICAO-TI / IATA-DGR)

III

14.5 Environmental hazards

Land transport (ADR/RID)

not applicable

Sea transport (IMDG)

not applicable

14.6 Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage. Advices on safe handling: see parts 6 - 8

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

No transport as bulk according to IBC Code.

14.8 Additional information

Land transport (ADR/RID)

tunnel restriction code: D/E

Sea transport (IMDG)

EmS-No.: F-E, S-E

Air transport (ICAO-TI / IATA-DGR)

not applicable

SECTION 15: Regulatory information

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

EU legislation

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

- * VOC-value: 370,036 g/l

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds

VOC limit value 2004/42/IIA(f): 700 g/l (2010)

- * Maximum VOC content (g/L) of the product in a ready to use condition: 370.0357
This product meets the requirements of Regulation (EC) No. 1935/2004 on the limitation of VOC content.

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

Hazard categories / Named dangerous substances

- * E1 Hazardous to the aquatic environment in Category Acute 1 or Chronic 1
Quantity 1: 100t; Quantity 2: 200t
P5c FLAMMABLE LIQUIDS
Quantity 1: 5.000t; Quantity 2: 50.000t

National regulations

15.2 Chemical Safety Assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

| REACH No. | Substance name | CAS No. | EC No. |
|-------------------------|--|------------|-----------|
| 01-2119979088-21 | 2-ethylhexanoic acid, zirconium salt | 22464-99-9 | 245-018-1 |
| 01-2119493353-35-0003 | Orange, sweet, ext. | 8028-48-6 | 232-433-8 |
| * 01-2119969963-17-xxxx | Reaction mass of 1-Methyl-4-(1-methylethenyl)cyclohexene and 1-Methyl-4-(1-methylethylidene)-cyclohexene and 1-methyl-4-(propan-2-yl)cyclohexa-1,3-diene | 8006-64-2 | 939-409-2 |
| * 01-2119553060-53-0007 | turpentine, oil | 932-349-8 | |

SECTION 16: Other information

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

| | |
|--------|---|
| H226 | Flammable liquid and vapour. |
| * H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| * H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| * H319 | Causes serious eye irritation. |
| * H332 | Harmful if inhaled. |
| H361d | Suspected of damaging the unborn child. |
| * H400 | Very toxic to aquatic life. |
| * H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |

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

| | |
|---------------------|------------------------|
| Flam. Liq. 3 | On basis of test data. |
| Skin Sens. 1 | Calculation method. |
| * Aquatic Acute 1 | Calculation method. |
| * Aquatic Chronic 1 | Calculation method. |

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL: Occupational Exposure Limit Value
BLV: Biological limit values
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging
CMR: Carcinogenic, Mutagenic and Reprotoxic
DIN: German Institute for Standardization / German industrial standard
DNEL: Derived No-Effect Level
EAKV: European Waste Catalogue Directive
EC: Effective Concentration
EC: European Community
EN: European Standard
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI: International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code: International Maritime Code for Dangerous Goods
ISO: International Organization for Standardization
LC: Lethal Concentration
LD: Lethal Dose
MWC: Maximum workplace concentration
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD: Organisation for Economic Cooperation and Development
PBT: persistent, bioaccumulative, toxic
PNEC: Predicted No Effect Concentration
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
UN: United Nations
VOC: Volatile Organic Compounds
vPvB: very persistent and very bioaccumulative

Indication of changes

* Data changed compared with the previous version