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

1.1 Product identifier
Thinner AF 631
Verdünnung AF 631

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

Relevant identified uses
Product Categories [PC]
PC9 - Coatings and paints, fillers, putties, thinners

Uses advised against
There are no information about relevant identified uses of the product according to the Regulation (EC) No. 1907/2006 (REACH-Regulation), which are advised against. For using the product observe the information in the Technical data sheet of the product.

1.3 Details of the supplier of the safety data sheet
Supplier (manufacturer/importer/only representative/downstream user/distributor)
Brillux GmbH & Co KG
www.brillux.de
Street : Weseler Straße 401
Postal code/city : D - 48163 Münster
Telephone : +49 (0)251-7188-0
Telefax : +49 (0)251-7188-280
Information contact:
Electronic mail address of the well-informed person for safety data sheets:sdb@brillux.de

1.4 Emergency telephone number
Outside the business hours (9 a.m. to 5 p.m.):
(Giftinformationszentrum-Nord, Göttingen, consultation in german or english language)
Telephone: +49 (0)551-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [CLP]
Asp. Tox. 1 ; H304 - Aspiration hazard : Category 1 ; May be fatal if swallowed and enters airways.

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

Hazard pictograms

Health hazard (GHS08)
Signal word
Danger
Hazard components for labelling
HYDROCARBONS, C11-C13, ISOALKANES, < 2% AROMATICS
Hazard statements
H304 May be fatal if swallowed and enters airways.
Precautionary statements
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing vapours.
P271 Use only outdoors or in a well-ventilated area.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER.
P331 Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P501 Dispose of contents/container to approved disposal company or local collection.

Supplemental Hazard information (EU)
EUH066 Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards
Adverse physicochemical effects
The product is ignitable! (Category 4 of the class of risk " Flammable liquids" to UN-GHS; Hazard statement: Combustible liquid).

Adverse environmental effects
The product does not contain any substances, which fulfil the criteria for PBT or vPvB in accordance with the Annex XIII of the Regulation (EC) No 1907/2006 (REACH-Regulation).

SECTION 3: Composition/information on ingredients

3.2 Mixtures
Description
Solvent mixture based on aliphatic hydrocarbons.

Hazardous ingredients
HYDROCARBONS, C11-C13, ISOALKANES, < 2% AROMATICS ; REACH registration No. : 01-2119456810-40 ; EC No. : 920-901-0
Weight fraction : ≥ 95 - < 100 %
Classification 1272/2008 [CLP] : Asp. Tox. 1 ; H304

Additional information
The used hydrocarbons contain no benzene or benzene in concentrations less than 0.1 percent by weight and fulfil therefore the default(handicap) of the remark P to the appendix VI of the order (EC) No. 1272/2006 (GHS order).
Full text of H- and EUH-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 attention. Immediately remove all contaminated clothing. In case of unconsciousness: lay on side - call a doctor. Never give anything by mouth to an unconscious person. If medical advice is needed, have product container or label at hand.

Following inhalation
When symptoms persists, take the casualty into the fresh air and keep warm. Irregular breathing/no breathing: artificial respiration. Call a doctor and tell him the exactly substance.

In case of skin contact
Take off immediately all contaminated clothes. Wash away with soap and water and rinse. Do NOT use solvents or thinners. If skin irritation continues, consult a doctor.

After eye contact
Remove contact lenses, keep eyelids open. Rinse open eye immediately with plenty of running water. Seek medical advice if complaint continues.

After ingestion
Drink water in small draught. Keep at rest. Do not induce vomiting. When swallowed immediately consult and show packing or label to physician.

4.2 **Most important symptoms and effects, both acute and delayed**
Potential symptoms: Headache, dizziness, giddiness, skin irritation, eye irritation and irritation to respiratory tract are possible. At swallowing and vomiting danger of penetrating into the lungs.

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

**SECTION 5: Firefighting measures**

5.1 **Extinguishing media**
**Suitable extinguishing media**
In case of fire: Use alcohol resistant foam, CO2, powders or water spray for extinction. Fight larger fires with water spray or alcohol resistant foam.

**Unsuitable extinguishing media**
In case of fire: Do not use waterjet for extinction.

5.2 **Special hazards arising from the substance or mixture**
**Hazardous combustion products**
Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

5.3 **Advice for firefighters**
**Special protective equipment for firefighters**
At a fire caused by the product a breathing apparatus with an independent source of air is to have ready and to use if necessary for the firefighting.

5.4 **Additional information**
Cool endangered containers with water in case of fire. Do not allow run-off from fire-fighting to enter drains or water courses.

**SECTION 6: Accidental release measures**

6.1 **Personal precautions, protective equipment and emergency procedures**
Refer to protective measures listed in sections 7 and 8. Keep away from ignition sources on account of the organic solvent content and air room well. Do not inhale vapours. Avoid contact with eyes and skin.

6.2 **Environmental precautions**
Do not empty into drains. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations. Holding polluted washing water back and disposing of duly.

6.3 **Methods and material for containment and cleaning up**
**For cleaning up**
Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Ensure adequate ventilation.

The areas concerned cleaning with a customary water based cleaning agent, not using organic solvents if possible.

6.4 **Reference to other sections**
See Section 7 for information on safe handling. You find information about the safety equipment of persons in the section 8, information about the refuse disposal in section 13.

**SECTION 7: Handling and storage**

7.1 **Precautions for safe handling**
**Protective measures**
Ensure a good ventilation in room and working area. Prevent the creation of inflammable or explosive concentrations
of vapour in air and avoid vapour concentrations higher than the OEL (Occupational Exposure Limit). Only use the material in places where open light, fire and other flammable sources can be kept away. For personal protection see Section 8. Avoid contact with skin and eyes. Read label before use. Use only outdoors or in a well-ventilated area.

Measures to prevent fire

Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Avoid concentrations which form ignitable or explosive vapour and air mixtures. Likewise, avoid any concentration of vapour above the MAC-valve. Keep away from ignition sources - No smoking. Ground/bond container and receiving equipment. Use explosion-proof pipes, electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Measures to prevent aerosol and dust generation

Do not breathe gas or spray.

Advices on general occupational hygiene

While working do not eat, drink or smoke. Wash hands and face before breaks and after work and take a shower if necessary. Immediately remove all contaminated clothing.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Electrical equipment should be protected to the appropriate standard. Floors should be of the conducting type. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Never use pressure to empty: container is not a pressure vessel. No smoking. Prevent unauthorized access. Do not store the product in lounge room. Keep only in the original container. Keep out of the reach of children. Keep container tightly closed.

Hints on joint storage

Keep away from oxidizing agents, from strongly alkaline and strongly acid materials. Store away from foodstuffs.

Storage class (TRGS 510) : 10

Further information on storage conditions

Keep container tightly sealed. Store at 5°-35°C. Containers should be kept dry and sealed.

7.3 Specific end use(s)

For using the product observe the information in the Technical data sheet of the product.

Industrial sector specific solutions

Giscode : Product code in accordance with GISBAU (hazardous materials information system of the German professional associations of the building and construction industry) for colours and varnishes (GISCODE): M-VM01.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

HYDROCARBONS, C11-C13, ISOALKANES, < 2% AROMATICS

Limit value type (country of origin) : TRGS 900 ( D )

Parameter : Group limit for the calculation of the occupational exposure limit for hydrocarbon mixtures (see section 2.9 of Technical Rule 900).

Limit value : 600 mg/m³

Version :

Remark

Short time value (STEL): Excess factor 2 (II) according to the german TRGS 900.

Taking into account the details mentioned in the TRGS 900 for the supervision of AGW.

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL (Occupational Exposure Limit), suitable respiratory protection must be worn. Observe data available of section 7.

Personal protection equipment
Eye/face protection
Use tightly fitting safety glasses.

Skin protection
Hand protection
At use as agreed a protective gloves from nitrile rubber, tested according to EN 374, with a material thickness 0.38 mm has to be used. Notes of the manufacturer have to be taken into account. Penetration time of the glove material: \( \geq 8 \) h.

By longer or repeated contact the penetration times can be considerably shorter. The protective gloves should replaced after the first wear out or a damage of the gloves. Gloves of cotton should be used under the gloves of polychloropren or nitrile rubber. After washing hands replace lost skin fat by fat containing skin creams.

Body protection
Using protective clothing.

Respiratory protection
Breathing protection equipment is not required in good ventilated places. Use suitable respiratory protective device in case of insufficient ventilation. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use the combination filter mask A2 - P3.

General health and safety measures
Avoid contact with eyes and skin. Immediately remove all contaminated clothing. Do not eat or drink during work - no smoking. Wash hands before breaks and after work. Ensure a good ventilation in room and working area. Do not breathe vapour.

Environmental exposure controls
The product should not reach waters and the ground. If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance
Physical state: Liquid.

Colour: conformable to product designation.

Odour
Poor, characteristic.

Safety relevant basis data
Initial boiling point and boiling range: \( 180 - 220 \) °C
Flash point: 62 °C
Ignition temperature: > 200 °C
Lower explosion limit: 0,6 Vol-%
Upper explosion limit: 7 Vol-%
Vapour pressure: not determined
Density: approx. 0,77 g/cm³
Solvent separation test: > 3 %
Water solubility: not applicable
Flow time: 90 s DIN-cup 4 mm
Kinematic viscosity: 20,5 mm²/s
VOC-value: 770 g/l

9.2 Other information
Other physical and chemical data have not been determined.

SECTION 10: Stability and reactivity

10.1 Reactivity
No dangers connected by a possible reactivity of the product are known to proper handling and storage.
10.2 **Chemical stability**
Stable under recommended storage and handling conditions (see section 7).

10.3 **Possibility of hazardous reactions**
Vapours can form explosive mixtures with air.

10.4 **Conditions to avoid**
To avoid formation of ignitable vapour and air mixtures ensure good ventilation (inter alia extraction system). Keep away from frost, heat and direct sunlight.

Cleaning cloths saturated with solvent can ignite themselves. Therefore ensure safe disposal of waste.

10.5 **Incompatible materials**
No dangerous reaction known. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.6 **Hazardous decomposition products**
No dangerous decomposition product are known if stored and handled correctly. When exposed to high temperatures or in case of fire hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen, may produced.

### SECTION 11: Toxicological information

11.1 **Information on toxicological effects**

#### Acute effects

Acute toxicity:
- Acute oral toxicity: No data available;
- Acute dermal toxicity: No data available;
- Acute inhalation toxicity: No data available.

**Acute oral toxicity**
- Parameter: LD50 (HYDROCARBONS, C11-C13, ISOALKANES, < 2% AROMATICS)
- Exposure route: Oral
- Species: Rat
- Effective dose: > 5000 mg/kg

**Acute dermal toxicity**
- Parameter: LD50 (HYDROCARBONS, C11-C13, ISOALKANES, < 2% AROMATICS)
- Exposure route: Dermal
- Species: Rabbit
- Effective dose: > 5000 mg/kg

**Acute inhalation toxicity**
- Parameter: LC50 (HYDROCARBONS, C11-C13, ISOALKANES, < 2% AROMATICS)
- Exposure route: Inhalation
- Species: Rat
- Effective dose: > 5000 mg/m³
- Exposure time: 8 h

#### Irritant and corrosive effects
Irritation:
- Skin contact: Skin irritation.
- Eye contact: Causes serious eye irritation.

#### Sensitisation
Sensitization: The product does not cause any skin and respiratory tract sensitization.

#### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
The product is not classified as human germ cell mutagenic, carcinogenic or human reproductive toxic (CMR effects).

#### STOT-single exposure
Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation, kidneys and liver damages, as well as leading the impairment of the central nervous system.
Symptoms and signs include headache: dizziness, fatigue, muscular weakness, drowsiness and in extreme cases loss of consciousness.
The liquid splashed in the eyes may cause irritation and reversible damage.

**STOT-repeated exposure**
Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

**Aspiration hazard**
Low quantities of the product can cause damage to the lungs, if the product enters into the lungs by swallowing or subsequent vomiting.
The product is classified as follows:
May be fatal if swallowed and enters airways.

**11.4 Other adverse effects**

Other observations
This product is unlikely to harm health, given normal and proper handling and hygienic precautions.

**11.5 Additional information**

The product is classified in toxicological terms on the basis of the results of the calculation procedure outlined within the Regulation (EC) No 1272/2008 (CLP-Regulation), listed in sections 2 and 3.
At proper dealing and use as agreed the product does not cause any effects bad for health after our experiences and the information submitted to us.

**SECTION 12: Ecological information**

**12.1 Toxicity**
Acute or chronic damages to water organisms by the product in the aquatic environment are not expecting.

**Aquatic toxicity**

**Acute (short-term) fish toxicity**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>NOELR (HYDROCARBONS, C11-C13, ISOALKANES, &lt; 2% AROMATICS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>Pseudokirchneriella subcapitata</td>
</tr>
<tr>
<td>Effective dose</td>
<td>1000 mg/l</td>
</tr>
<tr>
<td>Exposure time</td>
<td>72 h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>NOELR (HYDROCARBONS, C11-C13, ISOALKANES, &lt; 2% AROMATICS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>Daphnia magna (Big water flea)</td>
</tr>
<tr>
<td>Effective dose</td>
<td>1 mg/l</td>
</tr>
<tr>
<td>Exposure time</td>
<td>21 Days</td>
</tr>
</tbody>
</table>

**Acute (short-term) algae toxicity**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>EL0 (HYDROCARBONS, C11-C13, ISOALKANES, &lt; 2% AROMATICS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>Daphnia magna (Big water flea)</td>
</tr>
<tr>
<td>Effective dose</td>
<td>1000 mg/l</td>
</tr>
<tr>
<td>Exposure time</td>
<td>48 h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>EL0 (HYDROCARBONS, C11-C13, ISOALKANES, &lt; 2% AROMATICS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>Pseudokirchneriella subcapitata</td>
</tr>
<tr>
<td>Effective dose</td>
<td>1000 mg/l</td>
</tr>
<tr>
<td>Exposure time</td>
<td>72 h</td>
</tr>
</tbody>
</table>

**12.2 Persistence and degradability**
These are not data available about the potential of the product concerning his persistency and degradability.

**12.3 Bioaccumulative potential**
These are not data available about the bio accumulation potential of the product.
No information about the individual components is available either.

**12.4 Mobility in soil**
These are not data available about the potential of the product concerning his mobility in the ground.
A penetrating into soil, waters and sewage system should be prevented.
12.5 Results of PBT and vPvB assessment
This product does not contain any relevant substances which were classified as a PBT or vPvB-substance.

12.6 Other adverse effects
No information available.

12.7 Additional ecotoxicological information
Avoid exposing into ground, waterways and drainage.
The classification of the product is based on summation of classified components according to the Regulation (EC) No 1272/2008 (CLP-Regulation). See details in sections 2 and 3.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Product/Packaging disposal
Waste codes/waste designations according to EWC/AVV
Waste code product
Disposal-definition No. in accordance with the ordinance over the European waste list (waste list ordinance - AVV): 07 03 04 * other organic solvents, washing liquids and nut lyes.
Waste code packaging
Disposal-definition No. (AVV-Code):
15 01 10 * packings which contain dangerous substances or are polluted by dangerous substances.

Waste treatment options
Appropriate disposal / Product
Dispose of contents/container to approved disposal company or local collection according to the local regulations.
Do not dispose together with household garbage. Do not empty into waters or drains.

Appropriate disposal / Package
Only empty packaging can be transferred to recycling. Uncleaned packaging must be disposed of in the same manner as the medium.

SECTION 14: Transport information

14.1 UN number
No dangerous good in sense of these transport regulations.

14.2 UN proper shipping name
No dangerous good in sense of these transport regulations.

14.3 Transport hazard class(es)
No dangerous good in sense of these transport regulations.

14.4 Packing group
No dangerous good in sense of these transport regulations.

14.5 Environmental hazards
No dangerous good in sense of these transport regulations.

14.6 Special precautions for user
None

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
Not relevant because the product in type of delivery does not transport in bulks according to the International Maritime Organization (IMO) instruments.

SECTION 15: Regulatory information

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

Other regulations (EU)

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

The product is not subject to the EU guideline 2004/42/EC about the limitation of the issues of brief organic connections due to the use of organic solvents in certain colours and varnishes.

National regulations

Water hazard class (WGK)

Class : 1 (Slightly hazardous to water) Classification according to AwSV

Additional information

The product is not classified as a solid substance according to the criteria of the Penetrometer test (ADR, part 2, section 2.3.4) and also fulfils not the criteria for solid substances according to the TRwS 779 number 2.1.1.

15.2 Chemical safety assessment

A chemical safety assessments was not carried out.

SECTION 16: Other information

16.1 Indication of changes

02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] - Hazard components for labelling

16.2 Abbreviations and acronyms

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)

ADR: European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif transport des marchandises dangereuses par route)

AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany)

AOX: Adsorbable Organic halogen compounds

ATEmix: Calculated acute toxicity estimate of mixture

BCF: Bio-Concentration Factor

CAS: Chemical Abstract Service

CLP: Classification, Labelling and Packaging

CMR: Substances classified as Carcinogenic, Mutagenic or toxic for Reproduction

CSR: Chemical Safety Report

DNEL: Derived No Effect Level

EC: European Commission

EC50: Effective Concentration 50%

ECHA: European Chemical Agency

EEC: European Economic Community

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

EW: European Waste Catalogue

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IC50: Inhibition Concentration 50%

IMDG Code: International Maritime Dangerous Goods Code

IMO: International Maritime Organization

LC50: Lethal concentration 50%

LD50: Lethal Dose 50%

LOAEL: Lowest Observed Adverse Effect Level

LOEL: Lowest observable effect level

MAK: Treshold limit values Germany (Maximale Arbeitsplatzkonzentration - DFG)

MARPOL: Convention for the Prevention of Marine Pollution from Ships

MVZ: molar ratio

n.a.: Not applicable

n.d.: Not determined

n.r.: Not relevant

NLP: No Longer Polymers

NOAEC: No Observed Adverse Effect Concentration
**NOAEL**: No Observed Adverse Effect Level  
**NOEC**: No Observed Effect Concentration  
**NOEL**: No Observed Effect Level  
**OEL**: Occupational Exposure Limit  
**PBT**: Persistent, bioaccumulative, toxic  
**PNEC**: Predicted No Effect Concentration  
**RCP**: Reciprocal calculation procedure  
**REACH**: Registration, Evaluation and Authorization of Chemicals  
**RID**: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer)  
**STEL**: Short-term Exposure Limit  
**SVHC**: Substance of Very High Concern  
**TLV - TWA**: Threshold Limit Value - Time Weighted Average  
**VOC**: Volatile Organic Compounds  
**vPvB**: Very persistent, very bioaccumulative.

### 16.3 Key literature references and sources for data

None

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

The evaluation of hazard information of the product was carried out in accordance to Annex I of the REGULATION (EC) No 1272/2008 (CLP Regulation).

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

<table>
<thead>
<tr>
<th>Number</th>
<th>Full text</th>
</tr>
</thead>
<tbody>
<tr>
<td>H304</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
</tbody>
</table>

### 16.6 Training advice

None

### 16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.