

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 22.10.2014

Version number 1

Revision: 22.10.2014

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

- 1.1 Product identifier
- Trade name: **HS Air Dry Hardener 6227**
- Article number: 6227
- 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 Hardening agent/ Curing agent
- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:  
Carolux  
Kerkenbos 1077 T  
6546 BB Nijmegen  
The Netherlands  
T +31(0)24 3605601  
E info@carolux.nl  
W www.carolux.nl
- Further information obtainable from: info@carolux.nl
- 1.4 Emergency telephone number: +31(0)24 3605601

# UNILUX

# CAROLUX

CAROLUX Dreistraatweg 2 2512 LZ Nijmegen The Netherlands  
Tel. 0247624-360501 Fax 0247624-360510 info@carolux.nl www.carolux.nl

### SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2      H225 Highly flammable liquid and vapour.



GHS07

Acute Tox. 4      H332 Harmful if inhaled.  
 Eye Irrit. 2      H319 Causes serious eye irritation.  
 Skin Sens. 1      H317 May cause an allergic skin reaction.  
 STOT SE 3      H335 May cause respiratory irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008  
The product is classified and labelled according to the CLP regulation.
- Hazard pictograms



GHS02



GHS07

- Signal word Danger
- Hazard-determining components of labelling:  
Hexane, 1,6-diisocyanato-, homopolymer  
4-methylpentan-2-one  
isophorondiisocyanate, homopolymer  
Solvent naphtha (petroleum), light arom.
- Hazard statements  
H225 Highly flammable liquid and vapour.  
H332 Harmful if inhaled.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.

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H412 Harmful to aquatic life with long lasting effects.

- Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P260 Do not breathe mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P312 Call a doctor if you feel unwell.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

Contains isocyanates. May produce an allergic reaction.

Restricted to professional users.

- 2.3 Other hazards

- Results of PBT and vPvB assessment

- PBT: Not applicable.

- vPvB: Not applicable.

### SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures

- Description: Mixture of substances listed below with nonhazardous additions.

- Dangerous components:

CAS: 28182-81-2	Hexane, 1,6-diisocyanato-, homopolymer	50-75%
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Polymer	⚠ Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	
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Reg.nr.: 01-2119485796-17		
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CAS: 108-10-1	4-methylpentan-2-one	25-50%
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EINECS: 203-550-1	⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335	
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Reg.nr.: 01-2119473980-30		
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CAS: 53880-05-0	isophorondiisocyanate, homopolymer	2,5-10%
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Reg.nr.: 01-2119488734-24	⚠ Skin Sens. 1, H317; STOT SE 3, H335	
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CAS: 123-86-4	n-butyl acetate	2,5-10%
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EINECS: 204-658-1	⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	
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Reg.nr.: 01-2119485493-29		
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CAS: 64742-95-6	Solvent naphtha (petroleum), light arom.	2,5-10%
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EINECS: 265-199-0	⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Chronic 2, H411;	
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Reg.nr.: 01-2119455851-35	⚠ Acute Tox. 4, H332; STOT SE 3, H335-H336	
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- Regulation (EC) No 648/2004 on detergents / Labelling for contents

aromatic hydrocarbons	< 5%
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### SECTION 4: First aid measures

- 4.1 Description of first aid measures

- General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

- After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Remove contactlenses.

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- After swallowing:
    - Do not induce vomiting; call for medical help immediately.
    - Rinse out mouth and then drink plenty of water.
    - Rinse mouth.
  - 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.
- 

### SECTION 5: Firefighting measures

- 5.1 Extinguishing media
    - Suitable extinguishing agents: CO<sub>2</sub> or powder. Fight larger fights with alcohol resistant foam.
    - For safety reasons unsuitable extinguishing agents: Water with full jet
  - 5.2 Special hazards arising from the substance or mixture Carbon monoxide (CO)
  - 5.3 Advice for firefighters
    - Protective equipment: Wear self-contained respiratory protective device.
- 

### SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
    - Wear protective equipment. Keep unprotected persons away.
  - 6.2 Environmental precautions:
    - Inform respective authorities in case of seepage into water course or sewage system.
    - 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).
    - Dispose contaminated material as waste according to item 13.
    - Ensure adequate ventilation.
    - Do not flush with water or aqueous cleansing agents
  - 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/exhaustion at the workplace.
    - Prevent formation of aerosols.
    - Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.
    - Examination of lung function should be carried out on a regular basis on persons spraying this preparation.
  - Information about fire - and explosion protection:
    - Keep ignition sources away - Do not smoke.
    - Protect against electrostatic charges.
  - 7.2 Conditions for safe storage, including any incompatibilities
    - Storage:
      - Requirements to be met by storerooms and receptacles:
        - Store in a cool location.
        - Store only in the original receptacle.
      - Information about storage in one common storage facility: Store away from oxidising agents.
      - Further information about storage conditions: Keep container tightly sealed.
    - Storage class: 3
  - 7.3 Specific end use(s) No further relevant information available.
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### SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.

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- 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:

**108-10-1 4-methylpentan-2-one**

IOELV Short-term value: 208 mg/m<sup>3</sup>, 50 ppm  
 Long-term value: 83 mg/m<sup>3</sup>, 20 ppm

- DNELs

**108-10-1 4-methylpentan-2-one**

Dermal	Long-term exposure - systemic effects	11,8 mg/kg bw/day (worker)
Inhalative	Acute - short-term exposure - local effects	208 mg/m <sup>3</sup> (worker)
	Acute - short-term exposure - systemic effects	208 mg/m <sup>3</sup> (worker)
	Long-term exposure - local effects	83 mg/m <sup>3</sup> (worker)
	Long-term exposure - systemic effects	83 mg/m <sup>3</sup> (worker)

- PNECs

**108-10-1 4-methylpentan-2-one**

PNEC 27,5 mg/l (STP)

0,6 mg/l (aqua, freshwater)  
 1,5 mg/l (aqua, intermittent releases)  
 0,06 mg/l (aqua, marine water)  
 0,83 mg/kg (sediment marine water)  
 8,27 mg/kg (sediment freshwater)

- Additional information:

The lists valid during the making were used as basis.

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.

Examination of lung function should be carried out on a regular basis on persons spraying this preparation.

- 8.2 Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing  
 Wash hands before breaks and at the end of work. Avoid contact with the eyes.  
 Avoid contact with the eyes and skin.

- Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Short term filter device:

Filter A.

- Protection of hands:



Protective gloves

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

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves

Butyl rubber, BR

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material

Thickness of the gloves  $\epsilon$  0,7mm

Value for the permeation: Level  $\epsilon$  30 min

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· Eye protection:



Tightly sealed goggles

· Body protection: Solvent resistant protective clothing

### SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Liquid
Colour: · Odour:	Clear
· Odour threshold:	Characteristic Not determined.

· pH-value:

Not determined.

· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	116 °C

· Flash point:

14 °C

· Flammability (solid, gaseous):

Not applicable.

· Ignition temperature:

370 °C

· Decomposition temperature:

Not determined.

· Self-igniting:

Product is not selfigniting.

· Danger of explosion:

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits: Lower: Upper:

1,7 Vol %

9,0 Vol %

· Vapour pressure at 20 °C:

· Density at 20 °C: · Relative density

8 hPa

· Vapour density

· Evaporation rate

0,99 g/cm<sup>3</sup>

· Solubility in / Miscibility with water:

Not determined.

Not determined.

· Partition coefficient (n-octanol/water): Not determined.

Not determined.

· Viscosity:

Slightly soluble.

Dynamic:

Not determined.

Kinematic at 20 °C:

15 s (DIN 53211/4)

· Solvent content:

Organic solvents: 40,5 %

VOC (EC) 40,49 %

Solids content: 59,5 %

· 9.2 Other information

No further relevant information available.

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### SECTION 10: Stability and reactivity

- 10.1 Reactivity
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions
  - Reacts with alcohols.
  - Reacts with amines.
  - Reacts with water.
  - Reacts with strong oxidising agents.
- 10.4 Conditions to avoid High temperatures.
- 10.5 Incompatible materials: Oxidizing agents.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

### SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
- Acute toxicity:
- LD/LC50 values relevant for classification:

#### 108-10-1 4-methylpentan-2-one

Oral LD50 >2000 mg/kg (rat)  
Dermal LD50 >5000 mg/kg (rabbit)  
Inhalative LC50/4h 8,2-16,4 mg/l (rat)

#### 64742-95-6 Solvent naphtha (petroleum), light arom.

Oral LD50 >6800 mg/kg (rat)  
Dermal LD50 >3400 mg/kg (rab)  
Inhalative LC50/4h >10,2 mg/l (rat)

- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: Irritating effect.
- Sensitisation: Sensitisation possible through skin contact.
- Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful  
Irritant
- Sensitisation May cause sensitisation by skin contact.

### SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity:

#### 108-10-1 4-methylpentan-2-one

EC50/48h >100 mg/l (daphnia magna)  
EC50/96h 400 mg/l (algae)  
LC50/96h >100 mg/l (fish)

- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Ecotoxicological effects:
  - Remark: Harmful to fish
- Additional ecological information:
- General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Harmful to aquatic organisms

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- 12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

### SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- Recommendation  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

### SECTION 14: Transport information

- 14.1 UN-Number
- ADR, IMDG, IATA
- 14.2 UN proper shipping name
- ADR
- IMDG, IATA
- 14.3 Transport hazard class(es)
- ADR, IMDG, IATA

UN1263

1263 PAINT RELATED MATERIAL

PAINT RELATED MATERIAL



- Class
- Label
- 14.4 Packing group
- ADR, IMDG, IATA
- 14.5 Environmental hazards:
- Marine pollutant:
- 14.6 Special precautions for user
- Danger code (Kemler):
- EMS Number:
- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
- Transport/Additional information:

3 Flammable liquids.

3

III

No

Warning: Flammable liquids.

33

F-E,S-E

Not applicable.

- ADR
- Limited quantities (LQ)
- Excepted quantities (EQ)
- Transport category
- Tunnel restriction code

5L

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

3

D/E

- IMDG
- Limited quantities (LQ)
- Excepted quantities (EQ)

5L

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

- UN "Model Regulation":

UN1263, PAINT RELATED MATERIAL, 3, III

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### SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Other regulations, limitations and prohibitive regulations  
The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.
- 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.  
H226 Flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
H411 Toxic to aquatic life with long lasting effects.
- Contact: Mr. F. Dammers
- 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)  
IMDG: International Maritime Code for Dangerous Goods  
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)  
VOC: Volatile Organic Compounds (USA, EU)  
DNEL: Derived No-Effect Level (REACH)  
PNEC: Predicted No-Effect Concentration (REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
Flam. Liq. 2: Flammable liquids, Hazard Category 2  
Flam. Liq. 3: Flammable liquids, Hazard Category 3  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1  
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3  
Asp. Tox. 1: Aspiration hazard, Hazard Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2  
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

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