

Safety Data Sheet

according to Regulation (EC) No 1907/2006

OLI-NATURA Härter

Print date: 23.09.2015

Product code: A03662

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

1.1. Product identifier

OLI-NATURA Härter

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

Use of the substance/mixture

Curing agent

1.3. Details of the supplier of the safety data sheet

Company name:	Oli Lacke GmbH	
Street:	Bahnhofstrasse 22	
Place:	D-09244 Lichtenau	
Telephone:	+49(0)37208/84200	Telefax: +49(0)37208/84268
e-mail:	entwicklung@oli-lacke.de	
Internet:	www.oli-lacke.de	

1.4. Emergency telephone number:

Gemeins. Gifinformationszentrum Erfurt
+49(0)361/730730

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC

Indications of danger: Xn - Harmful, Xi - Irritant
R phrases:
Flammable.
May cause sensitisation by skin contact.

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

Hazard categories:
Flammable liquid: Flam. Liq. 3
Acute toxicity: Acute Tox. 4
Respiratory/skin sensitization: Skin Sens. 1
Specific target organ toxicity - single exposure: STOT SE 3
Hazard Statements:
Flammable liquid and vapour.
May cause an allergic skin reaction.
Harmful if inhaled.
May cause respiratory irritation.

2.2. Label elements

Hazardous components which must be listed on the label

Hexamethylen-1,6-diisocyanat, Homopolymer
hexamethylene-di-isocyanate

Signal word: Warning
Pictograms: GHS02-GHS07



Hazard statements

H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.

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H332 Harmful if inhaled.
H335 May cause respiratory irritation.

Precautionary statements

P312 Call a POISON CENTER/doctor if you feel unwell.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Special labelling of certain mixtures

EUH204 Contains isocyanates. May produce an allergic reaction.

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

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
	Hexamethylen-1,6-diisocyanat, Homopolymer	85 - < 90 %
28182-81-2	Xn - Harmful, Xi - Irritant R20-37-43	
	Acute Tox. 4, Skin Sens. 1, STOT SE 3; H332 H317 H335	
204-658-1	n-butyl acetate	10 - < 15 %
123-86-4	R10-66-67	
607-025-00-1	Flam. Liq. 3, STOT SE 3; H226 H336 EUH066	
212-485-8	hexamethylene-di-isocyanate	< 1 %
822-06-0	T - Toxic, Xi - Irritant R23-36/37/38-42/43	
615-011-00-1	Acute Tox. 3, Eye Irrit. 2, STOT SE 3, Skin Irrit. 2, Resp. Sens. 1, Skin Sens. 1; H331 H319 H335 H315 H334 H317	

Full text of R-, 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 advice. Never give anything by mouth to an unconscious person or a person with cramps. If unconscious place in recovery position and seek medical advice.

After inhalation

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

After contact with skin

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not wash with: Solvents/Thinner

After contact with eyes

Remove contact lenses, if present and easy to do. Continue rinsing. In case of contact with eyes, rinse

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immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After ingestion

If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

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

Impaired consciousness

4.3. Indication of any immediate medical attention and special treatment needed

Immediately call a doctor.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

alcohol resistant foam. Carbon dioxide (CO₂). Extinguishing powder. Water mist

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Burning produces heavy smoke. Hazardous decomposition products: carbon black Danger of serious damage to health by prolonged exposure. Use appropriate respiratory protection.

5.3. Advice for firefighters

Use water spray jet to protect personnel and to cool endangered containers. 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

Keep away from sources of ignition. - No smoking. Provide adequate ventilation. In case of fire and/or explosion do not breathe fumes. Safe handling: see section 7 Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Observe in addition any national regulations! In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Prevent spread over a wide area (e.g. by containment or oil barriers). Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clean with detergents. Avoid solvent cleaners. The contaminated area should be cleaned up immediately with: a mixture of 45% water, 50% ethanol or isopropyl alcohol, 5% concentrated ammonia solution (density 0.880)
Other: a mixture of 95% water and 5% sodium carbonate
Add the decontaminant to the remnants and let stand for several days in a non-sealed container until no further reaction is observed. Once reaction is finished, close container and dispose of.

6.4. Reference to other sections

See chapter 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this product is used. Examination of lung function should be carried out on a regular basis on persons spraying this product.

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In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop. Even after use and until complete evaporation of the flammable components, there is still a danger of an explosive steam-air mixture forming. Only use the material in places where open light, fire and other flammable sources can be kept away. Take precautionary measures against static discharge. Use explosion-proof electrical equipment. Provide earthing of containers, equipment, pumps and ventilation facilities. Wear anti-static footwear and clothing Use only antistatically equipped (spark-free) tools. Avoid contact with skin, eyes and clothes. Avoid: Inhalation of vapours or spray/mists, Inhalation of dust/particles When using do not eat, drink or smoke. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

Never use pressure to empty container. Keep/Store only in original container.

Do not allow to enter into surface water or drains.

Advice on protection against fire and explosion

Concentrated vapours are heavier than air. Vapours may form explosive mixtures with air.

Further information on handling

Conditions to avoid : Avoid contact with water. Protect from moisture.

Formation of: Carbon dioxide (CO₂). Due to gaseous decomposition products, overpressure can occur in tightly sealed containers.

Observe in addition any national regulations!

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Betriebssicherheitsverordnung (BetrSichV)

Advice on storage compatibility

Do not store together with: Oxidising agent , Strong acid, Strong alkali , Amines, Water.

Further information on storage conditions

Keep only in the original container in a cool, well-ventilated place. Keep away from heat. Notice the directions for use on the label. Keep container tightly closed in a cool, well-ventilated place. Protect from sunlight. Keep away from sources of ignition. - No smoking. Store in a place accessible by authorized persons only. Always close containers tightly after the removal of product.

7.3. Specific end use(s)

Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
123-86-4	Butyl acetate	150	724		TWA (8 h)	WEL
		200	966		STEL (15 min)	WEL

Additional advice on limit values

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this product is used. Examination of lung function should be carried out on a regular basis on persons spraying this product.

8.2. Exposure controls

Appropriate engineering controls

Use only in well-ventilated areas. If handled uncovered, arrangements with local exhaust ventilation should be used if possible. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Protective and hygiene measures

Wash hands before breaks and after work. Do not eat, drink, smoke or sneeze at the workplace.

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In dry state: Do not subject to grinding. Avoid generation of dust. If possible, dampen before cutting or drilling.

Contains isocyanates. See information supplied by the manufacturer.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

Tested protective gloves are to be worn: NBR (Nitrile rubber). 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. Use protective skin cream before handling the product.

Skin protection

Protective clothing: Natural fibres (e.g. cotton) heat-resistant synthetic fibres

Respiratory protection

During spraying wear suitable respiratory equipment. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Combination filtering device (EN 14387). During spraying wear suitable respiratory equipment.

Self-contained respirator (breathing apparatus) (DIN EN 133)

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

Physical state: liquid

Colour:

Test method

Changes in the physical state

Flash point: > 23 °C DIN EN ISO 1523

Lower explosion limits: 1,4 vol. %

Upper explosion limits: 10,4 vol. %

Ignition temperature: 370 °C

Vapour pressure: 14 hPa

(at 20 °C)

Density (at 20 °C): 1,13 g/cm³ ISO 2811

Flow time: < 10 s 4 DIN 53211

(at 20 °C)

Solvent separation test: < 3 %

Solvent content: 10,00 %

9.2. Other information

Solid content: 90,00 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Response: After contact with water: Yes, slowly .

Formation of: Carbon dioxide (CO₂).

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

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10.3. Possibility of hazardous reactions

Exothermic reactions with: Alkalis (alkalis), concentrated. Acid, concentrated. Oxidizing agents, strong. Amines, Alcohols, Water.
Due to gaseous decomposition products, overpressure can occur in tightly sealed containers. Danger of bursting container.

10.4. Conditions to avoid

Thermal decomposition can lead to the escape of irritating gases and vapours.

10.5. Incompatible materials

Exothermic reactions with: Alcohols, Amines.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Nitrogen oxides (NOx). Hydrocyanic acid (hydrocyanic acid).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

ATEmix calculated

ATE (inhalative vapour) 12,11 mg/l; ATE (inhalative aerosol) 1,656 mg/l

Acute toxicity

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
28182-81-2	Hexamethylen-1,6-diisocyanat, Homopolymer				
	inhalative vapour	ATE	11 mg/l		
	inhalative aerosol	ATE	1,5 mg/l		
822-06-0	hexamethylene-di-isocyanate				
	inhalative vapour	ATE	3 mg/l		
	inhalative aerosol	ATE	0,5 mg/l		

Irritation and corrosivity

Irritating to skin.

Sensitising effects

People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation.

Carcinogenic/mutagenic/toxic effects for reproduction

The components in this formulation do not meet the criteria for classification as CMR category 1 or 2.

Aspiration hazard

Contains isocyanates. May produce an allergic reaction. Respiratory or skin sensitisation May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Additional information on tests

There are no data available on the preparation/mixture itself. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

Practical experience

Observations relevant to classification

In case of inhalation

Adverse human health effects and symptoms :May cause respiratory irritation. May cause damage to liver if inhaled. May cause damage to kidneys if inhaled. Central nervous system depression - Dizziness, Headache, Drowsiness, Unconsciousness

After eye contact:

Irritating to eyes.

In case of ingestion :

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Vomiting , Gastrointestinal complaints

After skin contact:

The product is skin resorptive. Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

There are no data available on the preparation/mixture itself.

Further information

There are no data available on the preparation/mixture itself. The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other dangerous substances
Classified as hazardous waste.

Waste disposal number of used product

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other dangerous substances
Classified as hazardous waste.

Waste disposal number of contaminated packaging

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other dangerous substances
Classified as hazardous waste.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

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<u>14.1. UN number:</u>	UN 1866
<u>14.2. UN proper shipping name:</u>	Resin solution
<u>14.3. Transport hazard class(es):</u>	3
<u>14.4. Packing group:</u>	III
Hazard label:	3
Classification code:	F1
Special Provisions:	640E
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	30
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

<u>14.1. UN number:</u>	UN 1866
<u>14.2. UN proper shipping name:</u>	Resin solution
<u>14.3. Transport hazard class(es):</u>	3
<u>14.4. Packing group:</u>	III
Hazard label:	3
Classification code:	F1
Special Provisions:	640E
Limited quantity:	5 L
Excepted quantity:	E1

Marine transport (IMDG)

<u>14.1. UN number:</u>	UN 1866
<u>14.2. UN proper shipping name:</u>	Resin solution
<u>14.3. Transport hazard class(es):</u>	3
<u>14.4. Packing group:</u>	III
Hazard label:	3
Special Provisions:	223, 955
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-E, S-E

Air transport (ICAO)

<u>14.1. UN number:</u>	UN 1866
<u>14.2. UN proper shipping name:</u>	Resin solutions
<u>14.3. Transport hazard class(es):</u>	3
<u>14.4. Packing group:</u>	III
Hazard label:	3
Special Provisions:	A3
Limited quantity Passenger:	10 L
Passenger LQ:	Y344
Excepted quantity:	E1
IATA-packing instructions - Passenger:	355
IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	366
IATA-max. quantity - Cargo:	220 L

14.5. Environmental hazards

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ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

refer to chapter 7. No further action is necessary.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

2010/75/EU (VOC): 10 % (113 g/l)

2004/42/EC (VOC): 10 %

National regulatory information

Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

For this substance a chemical safety assessment is not required.

SECTION 16: Other information**Relevant R-phrases (Number and full text)**

- | | |
|----------|---|
| 10 | Flammable. |
| 20 | Harmful by inhalation. |
| 23 | Toxic by inhalation. |
| 36/37/38 | Irritating to eyes, respiratory system and skin. |
| 37 | Irritating to respiratory system. |
| 42/43 | May cause sensitisation by inhalation and skin contact. |
| 43 | May cause sensitisation by skin contact. |
| 66 | Repeated exposure may cause skin dryness or cracking. |
| 67 | Vapours may cause drowsiness and dizziness. |

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

- | | |
|--------|--|
| H226 | Flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
| EUH204 | Contains isocyanates. May produce an allergic reaction. |

Further Information

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.

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