

Safety Data Sheet

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

according to Regulation (EU) No 453/2010

Date of print: 21.10.2014
Version: 1.3

Revision date: 09.07.2014
Date of issue: 24.01.2013

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

1.1. Product identifiers:

Article no. (manufacturer / supplier): Hardener LMN
Identification of the substance or preparation:

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

Relevant identified uses

Printing
aids

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/downstreamer/distributor):

ITW Trans Tech
475 N. Gary Avenue
Carol Stream, IL 60188

Telephone: 630-752-4000
www.itwtranstech.com

1.4. Emergency telephone number

Emergency telephone: 352-323-3500 InfoTrac

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP):

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

Flam. Liq. 3 / H226	flammable liquids	Flammable liquid and vapour.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Skin Sens. 1 / H317	respiratory or skin sensitisation	May cause an allergic skin reaction.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.

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

The preparation is dangerous in the sense of Directive 1999/45/EC.

R10		Flammable
Xi; R36	Irritant	Irritating to eyes.
R43		May cause sensitization by skin contact.
R66		Repeated exposure may cause skin dryness or cracking.
R67		Vapours may cause drowsiness and dizziness.

2.2. Label elements

Labelling (CLP)

Hazard pictograms



Warning

Hazard statements:

H226	Flammable liquid and vapour.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.

Safety precautions:

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.

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P241	Use explosion-proof electrical equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
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 person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P370 + P378	In case of fire: Use Extinguishing powder or sand to extinguish.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Keep locked up.
P501	Dispose of contents/container to industrial incineration plant.

contains:

aromatic polyisocyanate
n-butyl acetate

Supplemental Hazard information (EU):

EUH066 Repeated exposure may cause skin dryness or cracking.
EUH204 Contains isocyanates. May produce an allergic reaction.

Labelling (67/548/EEC or 1999/45/EC)



Xi Irritant

Hazard statements:

10 Flammable
36 Irritating to eyes.
43 May cause sensitization by skin contact.
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.

Safety precautions:

24 Avoid contact with skin.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
37 Wear suitable gloves.
51 Use only in well-ventilated areas.

contains:

aromatic polyisocyanate

Special provisions concerning the labelling of certain mixtures

91 Contains isocyanates. May produce an allergic reaction.

2.3. Other hazards

SECTION 3: Composition/ information on ingredients

3.2. Mixtures

chemical characterization (preparation)

Description: Solvent containing resin solution

Hazardous ingredients:

Classification according to EC regulation 1272/2008 (CLP):

EC No:

REACH No:

CAS No.:

Chemical name:

% by weight

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INDEX no.:	classification:	
500-120-8 53317-61-6	aromatic polyisocyanate Eye Irrit. 2 H319 / Skin Sens. 1 H317	50 - 100
204-658-1 123-86-4 607-025-00-1	01-2119485493-29-XXXX n-butyl acetate Flam. Liq. 3 H226 / STOT SE 3 H336	25 - 50

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

EC No:	REACH No:	% by weight
CAS No.:	Identification of the hazard:	Remark:
INDEX no.:	classification:	
500-120-8 53317-61-6	aromatic polyisocyanate Xi; R36 / R43	50 - 100
204-658-1 123-86-4 607-025-00-1	01-2119485493-29-XXXX n-butyl acetate R10 / R66 / R67	25 - 50

Additional information

Full text of R-phrases: 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.

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.

In case of skin contact:

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

In case of eye contact:

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

After ingestion:

If swallowed, rinse mouth with water (only if the person is conscious). Consult physician immediately. Keep victim calm. Do not induce vomiting.

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

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

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Alcohol resistant foam, Carbon dioxide, Powder, spray mist, (water)

Extinguishing media which must not be used for safety reasons:

Strong water jet

5.2. Special hazards arising from the substance or mixture

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. Treat runoff as hazardous.

SECTION 6: Accidental release measures

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6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours. See protective measures under point 7 and 8.

6.2. Environmental measures

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

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 chapter 13). Use appropriate container to avoid environmental contamination. Fouled surfaces must be immediately cleaned with suitable solvents, Useable as such (flammable): water 45 vol.% ethanol or i-propanol 50 vol. % ammonia solution (density= 0.88) 5 vol.%
Alternative (non-flammable): sodium carbonate 5 vol.% water 95 vol.%.

Take up spilled residuals with the same agent and leave them for a few days in unclosed containers until there is no further reaction. Then, close the containers and dispose of them in accordance with the regulations for waste removal (refer to Chapter 13).

6.4. Reference to other sections

Observe protective provisions (see chapter 7 and 8).

SECTION 7: Handling and storage

People who suffer from skins problems, asthma, allergies, chronic or recurring respiratory illnesses must not be deployed in processes, which use this substance.

7.1. Precautions for safe handling

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Be careful when opening used containers (excess pressure). Precautionary measures should be taken in order to reduce strain from humidity or water: CO₂ is formed which may produce excess pressure in closed containers. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. When using do not eat, drink or smoke. Personal protection equipment: refer to chapter 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.

Precautions against fire and explosion:

Vapours are heavier than air and will spread at floor level. Vapours form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

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. Keep away from amines, alcohols and water.

Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 5 °C and 35 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. 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. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

People who suffer from skins problems, asthma, allergies, chronic or recurring respiratory illnesses must not be deployed in processes, which use this substance.

People who spray this preparation should have regular pulmonary function tests.

8.1. Control parameters

EC No:	Description:	type:	Limit value	Unit
CAS No.:			STEL (EC) TWA (EC)	

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204-658-1	n-butyl acetate	966	724	mg/m3
123-86-4		200	150	ppm

Additional information

TWA (EC): Occupational exposure limit value

STEL (EC): Short-term occupational exposure limit value

8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. For other tasks a suitable respiratory system must be used, if local and room suction is not sufficient for keeping aerosol and solvent vapour concentration below the exposure limit values. (refer to Personal protection equipment.)

Occupational exposure controls:

Respiratory protection:

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection:

For prolonged or repeated handling the following glove material must be used: butyl rubber

Thickness of the glove material: > 0,4 mm ; Penetration time (maximum wearing period): > 480 min.

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: DIN EN 374

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

Eye protection:

Wear closely fitting protective glasses in case of splashes.

Body protection:

Recommendation: Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures:

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. refer to chapter 7. No further action is necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:

Physical state:	liquid
Colour	as labeled
Odour:	typical

Safety relevant basis data	Unit	Method	Remark:
Flash point (°C):	27 °C	DIN 53213	
Ignition temperature (AIT):	415 °C		
lower explosion limit:	1,2 Vol-%		
Upper explosion limit:	7,5 Vol-%		
Vapour pressure at 20 °C:	15,00 mbar		
Density at 20 °C:	1,13 g/cm³		
Water solubility (g/l):	not soluble		
pH at 20 °C:	-		
Viscosity at 20 °C	> 90 s 4 mm	DIN 53211	
Solvent separation test (%):	< 3 %	ADR/RID	
Solid content (%):	67,00 % by weight		
solvent content:			
Organic solvents::	33 % by weight		

9.2. Other information:

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with water, forming carbon dioxide, producing bursting hazard in closed containers due to build-up of pressure.

10.2. Chemical stability

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

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chapter 7.

10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions. Reacts with water, forming carbon dioxide, producing bursting hazard in closed containers due to build-up of pressure.

10.4. Conditions to avoid

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

10.5. Incompatible materials

10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

No data on preparation itself available.

11.1. Information on toxicological effects

Acute toxicity

Toxicological data are not available.

Irritant and corrosive effects

Toxicological data are not available.

Sensitisation

Toxicological data are not available.

Specific target organ toxicity

Toxicological data are not available.

Aspiration hazard:

Toxicological data are not available.

Practical experience

Other observations:

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, drowsiness, 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. Because of the isocyanate components' properties of this and with consideration of similar preparations the following applies: Preparation may cause acute irritation and/or sensitization of airways which lead to tightness in thorax, short-breath and asthmatic complaints. After sensitization even concentrations below the exposure limit values may cause asthma. Repeated inhaling can lead to permanent illness of the respiratory tract.

Overall Assessment on CMR properties:

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

There is no information available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified according to the toxicological dangers. See chapters 2 and 15 for details.

SECTION 12: Ecological information

Overall evaluation:

There is no information available on the preparation itself.
Do not allow to enter into surface water or drains.

12.1. Toxicity

No information available.

Long-term Ecotoxicity

Toxicological data are not available.

12.2. Persistence and degradability

Toxicological data are not available.

12.3. Bioaccumulative potential

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Toxicological data are not available.

Bioconcentration factor (BCF):

Toxicological data are not available.

12.4. **Mobility in soil**

Toxicological data are not available.

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**

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment.

SECTION 13: Disposal considerations

13.1. **Waste treatment methods**

Appropriate disposal / Product

Recommendation:

Do not allow to enter into surface water or drains. Handle contaminated packaging in the same way as the substance itself. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Control report for waste code/ waste marking according to EAKV:

080312 waste ink containing dangerous substances

Contaminated packaging:

Recommendation:

Cleaned containers may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1. **UN-No.:**

1866

14.2. **UN proper shipping name**

Land transport (ADR/RID):

Resin solution

Sea transport (IMDG):

RESIN SOLUTION

Air transport (ICAO-TI / IATA-DGR):

Resin solution

14.3. **Transport hazard class(es)**

Land transport (ADR/RID):

KEINE GÜTER DER KLASSE 3

in containers > 450 l: class 3, item 31c

Sea transport (IMDG)

3

for packages < 30 litres:

Transport in accordance with the provisions of paragraph 2.3.2.5 of the IMDG Code.

Air transport (ICAO-TI / IATA-DGR)

3

14.4. **Packing Group:**

III

14.5. **Environmental hazards:**

Land transport (ADR/RID)

n.a.

Marine pollutant:

n.a.

14.6. **Environmental hazards**

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

Further remarks:

Land transport (ADR/RID)

Tunnel restriction code:

D/E

Sea transport (IMDG)

EmS-No.:

F-E, S-E

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- 14.7. **Special precautions for user**
not applicable

SECTION 15: Regulatory information

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

EU legislation

Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).

VOC-value (in g/l) ISO 11890-2: 372,933

VOC-value (in g/l) ASTM D 2369: 372,933

National regulations

Informations on working limitations:

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

- 15.2. **Chemical Safety Assessment**

Chemical safety assessments for substances in this preparation were not carried out.

SECTION 16: Other information

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

Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Skin Sens. 1 / H317	respiratory or skin sensitisation	May cause an allergic skin reaction.
Flam. Liq. 3 / H226	flammable liquids	Flammable liquid and vapour.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.
R10		Flammable
R66		Repeated exposure may cause skin dryness or cracking.
R67		Vapours may cause drowsiness and dizziness.
Xi; R36	Irritant	Irritating to eyes.
R43		May cause sensitization by skin contact.

Further remarks:

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

Remarks:

n.a. = not applicable

Trusted Partner for Your Product Decorating Needs

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