Printing date 07/04/2017 Reviewed on 07/04/2017

1 Identification

- · Product identifier
- · Trade name: Hardener for WS 2K Supra satin, semi-gloss, Supra A.T. semi-gloss and 2K Invisible Protect A.T.
- · Article number: 11467-250
- · Application of the substance / the mixture Hardening agent/ Curing agent
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

LOBA-Wakol LLC

521-C Eagleton Downs RD Pineville, NC 28134, USA Fon (800) 230-6456 Fax (704) 527 - 5922

· Emergency telephone number:

For Emergency Assistance Involving Chemicals - Call INFOTRAC US. 800-535-5053

International:INFOTRAC, Tel + 1 352 323 3500

Info you need when you call: Product Name or Manufacturer Name

2 Hazard(s) identification

· Classification of the substance or mixture



Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H335 May cause respiratory irritation.

Flam. Liq. 4 H227 Combustible liquid.
Aquatic Acute 3 H402 Harmful to aquatic life.

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

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



· Signal word Warning

· Hazard-determining components of labeling:

aliphatic polyisocyanate

2-butoxyethyl acetate

hexamethylene diisocyanate

· Hazard statements

Combustible liquid.

Harmful if inhaled.

May cause an allergic skin reaction.

 ${\it May \ cause \ respiratory \ irritation.}$

Harmful to aquatic life.

Harmful to aquatic life with long lasting effects.

· Precautionary statements

Keep away from flames and hot surfaces. - No smoking.

Avoid breathing dust/fume/gas/mist/vapors/spray

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Wear protective gloves / eye protection / face protection.

Specific treatment (see on this label).

Store locked up.

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

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 1 Fire = 2 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



· Other hazards

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:			
CAS: 160994-68-3	aliphatic polyisocyanate	50-100%	
	Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Acute 3, H402; Aquatic Chronic 3, H412		
CAS: 111109-77-4	Dipropyleneglycoldimethylether	10-25%	
	Proglyde DMM		
	Flam. Liq. 4, H227		
CAS: 112-07-2	2-butoxyethyl acetate	5-10%	
EINECS: 203-933-3	♠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Flam. Liq. 4, H227		
CAS: 822-06-0	hexamethylene diisocyanate	<0.5%	
EINECS: 212-485-8	Acute Tox. 3, H331; & Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	1	

· Additional information: For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- · Description of first aid measures
- · General information:

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.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing: If symptoms persist consult doctor.

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- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

· 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.

· 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.

· Protective Action Criteria for Chemicals

· PAC-1:		
112-07-2 2-buto	yethyl acetate	15 ppm
822-06-0 hexame	thylene diisocyanate	0.018 ppm
· PAC-2:		
112-07-2 2-buto	yethyl acetate	35 ppm
822-06-0 hexame	thylene diisocyanate	0.2 ppm
· PAC-3:		
112-07-2 2-buto	yethyl acetate	210 ppm
822-06-0 hexame	ethylene diisocyanate	3 ppm

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.

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- · Storage class: 10
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

112-07-2 2-butoxyethyl acetate

REL Long-term value: 33 mg/m³, 5 ppm TLV Long-term value: 130 mg/m³, 20 ppm

822-06-0 hexamethylene diisocyanate

REL Long-term value: 0.035 mg/m³, 0.005 ppm Ceiling limit value: 0.14* mg/m³, 0.02* ppm *10-min

TLV Long-term value: 0.034 mg/m³, 0.005 ppm

BEI

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

 ${\it Keep \ away \ from \ foodstuffs, \ beverages \ and \ feed.}$

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:

Protective gloves

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

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

· Material of gloves

Nitrile rubber, NBR

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

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

· Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid

Color: According to product specification

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	(Contd. of pa	age
· Odor:	Characteristic	
· Odor threshold:	Not determined.	
· pH-value:	Not determined.	
· Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	175 °C (347 °F)	
· Flash point:	65 °C (149 °F)	
· Flammability (solid, gaseous):	Not applicable.	
Ignition temperature:	375 °C (707 °F)	
Decomposition temperature:	Not determined.	
· Auto igniting:	Product is not selfigniting.	
· Danger of explosion:	Not determined.	
· Lower:	Not determined.	
· Upper:	Not determined.	
· Vapor pressure at 20 °C (68 °F):	0.7 hPa (1 mm Hg)	
· Density at 20 °C (68 °F):	1.095 g/cm³ (9.138 lbs/gal)	
· Relative density	Not determined.	
· Vapor density	Not determined.	
· Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
Water:	Fully miscible.	
· Partition coefficient (n-octanol/wate	er): Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic at 20 °C (68 °F):	35 s (DIN 53211/4)	
Organic solvents:	24.3 %	
Water:	0.0 %	
VOC content:	24.3 %	
Solids content:	75.0 %	
Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions

Reacts with alcohols, amines, aqueous acids and alkalis.

Reacts with water.

Danger of bursting.

- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

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Trade name: Hardener for WS 2K Supra satin, semi-gloss, Supra A.T. semi-gloss and 2K Invisible Protect A.T.

(Contd. of page 5)

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful Irritant

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Harmful to fish
- · Additional ecological information:
- · General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms

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

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. After prior treatment product has to be landfilled or incinerated adhering to the regulations pertaining to the disposal of especially hazardous waste.

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

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Trade name: Hardener for WS 2K Supra satin, semi-gloss, Supra A.T. semi-gloss and 2K Invisible Protect A.T.

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· Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information	
· UN-Number · DOT, ADR, ADN, IMDG, IATA	not regulated
· UN proper shipping name · DOT, ADR, ADN, IMDG, IATA	not regulated
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA · Class	not regulated
· Packing group · DOT, ADR, IMDG, IATA	not regulated
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex I MARPOL73/78 and the IBC Code	II of Not applicable.
· UN ''Model Regulation'':	not regulated

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · TSCA (Toxic Substances Control Act): All components are on the TSCA inventory
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



- · Signal word Warning
- · Hazard-determining components of labeling:

aliphatic polyisocyanate

2-butoxyethyl acetate

hexamethylene diisocyanate

· Hazard statements

Combustible liquid.

Harmful if inhaled.

May cause an allergic skin reaction.

May cause respiratory irritation.

Harmful to aquatic life.

Harmful to aquatic life with long lasting effects.

· Precautionary statements

Keep away from flames and hot surfaces. – No smoking.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves / eye protection / face protection.

Specific treatment (see on this label).

Store locked up.

(Contd. on page 8)

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Trade name: Hardener for WS 2K Supra satin, semi-gloss, Supra A.T. semi-gloss and 2K Invisible Protect A.T.

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

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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

H227 Combustible liquid.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

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.

H402 Harmful to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

- · Department issuing SDS: Productmanagement.
- · Date of preparation / last revision 07/04/2017 / 2
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. 3: Acute toxicity - Category 3

Acute Tox. 4: Acute toxicity - Category 4

 $Skin\ Irrit.\ 2: Skin\ corrosion/irritation-Category\ 2$

Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

· * Data compared to the previous version altered.