Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: LOBA Hardener for WS Supra extra matte

CHEMICAL FAMILY: Aliphatic polyisocyanate

PRODUCT USE: Industrial hardener for coating materials or adhesives.

MANUFACTURER / SUPPLIER:

LOBA-Wakol LLC
9600 B Southern Pine Boulevard
Charlotte, NC 28273, USA
Fon: (800) 230-6456
Fax: (704) 527-5922

Product information:

Head of Product Management: Dr. Wolfgang Ehmann
Telephone: 49 (0)7156 / 357-174
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For Emergency Assistance Involving Chemicals – Call INFOTRAC
U.S. 800-535-5053
INTERNATIONAL +1-352-323-3500
Info you need when you call: *Product Name* or *Manufacturer Name*

2. HAZARD IDENTIFICATION

POTENTIAL HEALTH EFFECTS: (Also see section 11)

EMERGENCY OVERVIEW: CAUTION!
MAY CAUSE SENSITIZATION BY SKIN CONTACT.
POSSIBILITY OF RESPIRATORY SENSITIZATION AFTER OVEREXPOSURE.

ROUTES OF ENTRY: Skin and eye contact and inhalation.

Appearance: Clear to yellowish liquid, odorless.

CARCINOGENICITY:

NTP: No, IARC: No, OSHA: No

This material is considered hazardous by the OSHA Hazard Communication Standard. (29CFR1910.1200) proper personal hygiene practices are recommended in the workplace.

HMIS:

Health: 2 Flammability: 0 Reactivity: 0

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Component	CAS#	% By Wt.
Hexamethylene diisocyanate, oligomers	28182-81-2	~96%
Polyethoxy tridecylether phosphate	9046-01-9	~3%
N,N-Dimethylcyclohexylamine	98-94-2	~1%
Hexamethylene diisocyanate	822-06-0	<0.2%

4. FIRST AID MEASURES:

GENERAL INFORMATION: Remove soiled or soaked clothing immediately and place in a tightly sealed sack for decontamination purposes.

SKIN: Immediately remove contaminated clothing and shoes. Wash away with soap and water. Thoroughly rinse affected areas with water for at least 15 minutes. If skin irritation or redness occurs, consult a doctor.

EYES: Immediately rinse eyes keeping eyelids open for approximately 15 minutes. If any irritation occurs, consult a doctor and bring along a copy of the MSDS.

INGESTION: Do not induce vomiting under any circumstances. Do not let the victim drink water. Contact a doctor immediately.

INHALATION: Immediately remove to fresh air and keep the victim calm. Consult a doctor in case of complaints.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Foam, dry chemical, Carbon dioxide (CO2), water.

SPECIAL FIRE FIGHTING PROCEDURES: Exposure to decomposition products may cause a health hazard. Do not breathe smoke, fumes or vapors. Try to stay upwind of the fire. Use self contained breathing apparatus and full protective

clothing. Cool only undamaged exposed containers with water but make sure that the product itself does not come in direct contact with water.

6. ACCIDENTAL RELEASE MEASURES:

SPILL AND LEAK PROCEDURES: Wear proper personal protective equipment (mask, gloves and coveralls). Unprotected persons must be kept away. Contain the spill with dikes. Pick up with a neutral absorbent material. Thoroughly rinse the rest away with water. Do not allow product to reach soil, sewage system or any water courses. Dispose of the material according to regulations.

7. HANDLING AND STORAGE

HANDLING: Observe the usual precautions for the safe handling or organic liquids. Avoid contact with skin and eyes. Ensure efficient exhaust ventilation when handling this product. Do not inhale vapors or aerosols. Keep container tightly closed when not in use.

STORAGE: Always store in original metal containers (i.e. Aluminum or steel). Do not store in copper and copper alloy containers. Keep container tightly closed, in a cool, dry and well ventilated area. Protect from humidity and water. Keep away from foodstuffs, beverages and feed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use in a well ventilated area. Ensure good local exhaust ventilation in the workplace.

EXPOSURE LIMITS:

Component	CAS#	Exposure Limits
Hexamethylene diisocyanate (HDI)	822-06-0	0.005 ppm, 0.034 mg/m^3 TLV/TWA ACGIH

RESPIRATORY PROTECTION: Wear appropriate NIOSH approved combination vapor/particle respirators if aerosols or vapors should develop.

SKIN PROTECTION: Avoid skin contact by wearing protective work clothing. Wear nitrile rubber gloves. Always observe the information of the glove manufacturers on permeability and breakthrough times and other workplace requirements.

EYE PROTECTION: Tightly sealed goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Form	Liquid
Color	Clear yellowish
Odor	odorless
pH	Not applicable (reacts with water)
Boiling point	>150°C (311°F) @1.33hPa
Flashpoint	>160°C (320°F)
Density at 20°C (68°F)	1130 kg/m3 @ 25°C (77°F)
Solubility in Water	Insoluble; reacts with water
Solubility in organic solvents	Soluble in ketones, esters, chlorinated solvents and hydrocarbon solvents
n-octanol water partition coefficient	Not applicable; reacts with water
Dynamic Viscosity	~1400 mPas @25°C (77°F)

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under recommended storage and handling conditions (See Section 7).

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition (pyrolysis) may produce hazardous decomposition gases (CO2, NOx).

INCOMPATIBILITIES: Reacts with water, alcohols, amines, bases. Exothermic reactions are possible. Danger of pressure buildup in closed systems due to the release of CO2; risk of bursting.

11. TOXICOLOGICAL INFORMATION

Hexamethylene diisocyanate, oligomers: Acute oral LD50: >5000 mg/kg (rat)

Skin irritation: prolonged or repeated contact can cause slight skin irritation.

Eye irritation: Can cause slight eye irritation.

Inhalation: Can cause slight irritation of the respiratory tract.
Sensitization: Skin sensitizer. Can cause respiratory sensitization (asthma) in certain sensitive or already sensitized people.

12. ECOLOGICAL INFORMATION

Biodegradability: Hexamethylene diisocyanate, oligomers are not biodegradable (internal evaluation).
Bioaccumulation: Hexamethylene diisocyanate, oligomers show no potential for bioaccumulation (internal evaluation).

EC50 Daphnia magna 24 hr: >100 mg/l (100% saturated concentration in water).

This product is considered harmful to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Waste residues should not be released into sewers or surface waters.

Recommended disposal is by incineration in an approved facility.
Unclean packages must be disposed of in accordance with Federal, State or Local regulations. Contaminated packaging should also be incinerated at an approved facility.

14. TRANSPORT INFORMATION

DOT SHIPPING NAME: Not regulated.

15. REGULATORY INFORMATION

All components of this product are on the TSCA Inventory.

SARA Title III:
This product contains no toxic chemicals which are subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 372.

Note: Entries under this section cover only those regulations typically addressed in the MSDS generating process, such as, TSCA, and EPCRA/SARA Title III.

16. OTHER INFORMATION

HAZCOM LABEL: CAUTION!
MAY CAUSE SENSITIZATION BY SKIN CONTACT.
POSSIBILITY OF RESPIRATORY SENSITIZATION AFTER OVEREXPOSURE.

This MSDS conforms to the American National Standard, ANSI Z400.1-2004.
To the best of our knowledge, the information contained in this MSDS is accurate. It is intended to assist the user in his evaluation of the product's hazards, and safety precautions to be taken in its use. The data on this MSDS relate only to the specific material designated herein. We do not assume any liability for the use of, or reliance on this information, nor do we guarantee its accuracy or completeness.

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