

**Safety Data Sheet (SDS)**  
**OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS**

Printing date 07/04/2017

Reviewed on 07/04/2017

## 1 Identification

- **Product identifier**
- **Trade name:** Hardener for HS 2K Intensive A. T.
- **Application of the substance / the mixture** Curing agent/ cross-linker/ Vulcanizing agent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 Loba Wakol LLC  
 · 2732 Hwy 74 West  
 · Wadesboro, NC 28170  
 · Phone: (800) 230-6456  
 · Email: info@loba-wakol.com
- **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**



GHS07

- 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.

- **Label elements**
- **GHS label elements**  
 The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labeling:**  
 Aliphatic polyisocyanate  
 hexamethylene diisocyanate
- **Hazard statements**  
 Harmful if inhaled.  
 May cause an allergic skin reaction.  
 May cause respiratory irritation.
- **Precautionary statements**  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Wear protective gloves.  
 IF ON SKIN: Wash with plenty of soap and water.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 Call a POISON CENTER/doctor if you feel unwell.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0  
 Fire = 1  
 Reactivity = 0

(Contd. on page 2)

US

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## OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS

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(Contd. of page 1)

- **HMIS-ratings (scale 0 - 4)**

|            |   |                |
|------------|---|----------------|
| HEALTH     | 0 | Health = 0     |
| FIRE       | 1 | Fire = 1       |
| REACTIVITY | 0 | Reactivity = 0 |

- **Other hazards**
- **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: 28182-81-2<br>NLP: 500-060-2  | Aliphatic polyisocyanate<br>⚠ Skin Sens. 1, H317   | 50-100% |
| CAS: 822-06-0<br>EINECS: 212-485-8 | hexamethylene diisocyanate<br>⚠ Acute Tox. 3, H331; ⚠ Resp. Sens. 1, H334; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335 | <0.5%   |

- **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.
- **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:** Use fire fighting measures that suit the environment.
- **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.

(Contd. on page 3)

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(Contd. of page 2)

- **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:**

|            |                            |                       |
|------------|----------------------------|-----------------------|
| 28182-81-2 | Aliphatic polyisocyanate   | 7.8 mg/m <sup>3</sup> |
| 822-06-0   | hexamethylene diisocyanate | 0.018 ppm             |

· **PAC-2:**

|            |                            |                      |
|------------|----------------------------|----------------------|
| 28182-81-2 | Aliphatic polyisocyanate   | 86 mg/m <sup>3</sup> |
| 822-06-0   | hexamethylene diisocyanate | 0.2 ppm              |

· **PAC-3:**

|            |                            |                       |
|------------|----------------------------|-----------------------|
| 28182-81-2 | Aliphatic polyisocyanate   | 510 mg/m <sup>3</sup> |
| 822-06-0   | hexamethylene 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.
- **Storage class:** 12
- **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 constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.  
 At this time, the remaining constituent has no known exposure limits.

**822-06-0 hexamethylene diisocyanate**

|            |   |
|------------|---|
| REL        | Long-term value: 0.035 mg/m <sup>3</sup> , 0.005 ppm<br>Ceiling limit value: 0.14* mg/m <sup>3</sup> , 0.02* ppm<br>*10-min |
| TLV<br>BEI | Long-term value: 0.034 mg/m <sup>3</sup> , 0.005 ppm  |

- **Additional information:** The lists that were valid during the creation were used as basis.

(Contd. on page 4)

US

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(Contd. of page 3)

- **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.
- **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:**

|                        |                 |
|------------------------|-----------------|
| <b>Form:</b>           | Fluid           |
| <b>Color:</b>          | Light yellow    |
| <b>Odor:</b>           | Odorless        |
| <b>Odor threshold:</b> | Not determined. |
- **pH-value:** Not determined.
- **Change in condition**

|                                     |                   |
|-------------------------------------|-------------------|
| <b>Melting point/Melting range:</b> | Undetermined.     |
| <b>Boiling point/Boiling range:</b> | >150 °C (>302 °F) |
- **Flash point:** >160 °C (>320 °F)
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:**
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Lower:** Not determined.
- **Upper:** Not determined.
- **Vapor pressure:** Not determined.
- **Density at 20 °C (68 °F):** 1.13 g/cm<sup>3</sup> (9.43 lbs/gal)
- **Relative density** Not determined.
- **Vapor density** Not determined.
- **Evaporation rate** Not determined.

(Contd. on page 5)

US

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(Contd. of page 4)

- |   |   |
|---|---|
| · <b>Solubility in / Miscibility with Water:</b>  | <i>Not miscible or difficult to mix.</i>          |
| · <b>Partition coefficient (n-octanol/water):</b> | <i>Not determined.</i>                            |
| · <b>Viscosity:</b>                               |   |
| <b>Dynamic at 20 °C (68 °F):</b>                  | <i>600 mPas</i>                                   |
| <b>Kinematic:</b>                                 | <i>Not determined.</i>                            |
| <b>Organic solvents:</b>                          | <i>0.0 %</i>                                      |
| <b>Water:</b>                                     | <i>0.0 %</i>                                      |
| <b>VOC content:</b>                               | <i>0.0 %</i>                                      |
| <b>Solids content:</b>                            | <i>100.0 %</i>                                    |
| · <b>Other information</b>                        | <i>No further relevant information available.</i> |

### 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.*

### 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 inhalation.*
  - 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**

|   |
|---|
| · <b>IARC (International Agency for Research on Cancer)</b> |
|---|

|   |
|---|
| <i>None of the ingredients is listed.</i> |
|---|

|  |
|--|
| · <b>NTP (National Toxicology Program)</b> |
|--|

|   |
|---|
| <i>None of the ingredients is listed.</i> |
|---|

|   |
|---|
| · <b>OSHA (Occupational Safety &amp; Health Administration)</b> |
|---|

|   |
|---|
| <i>None of the ingredients is listed.</i> |
|---|

US

(Contd. on page 6)

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(Contd. of page 5)

### 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.
- **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.*
- **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.

### 14 Transport information

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

(Contd. on page 7)

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(Contd. of page 6)

- **GHS label elements**

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

- **Hazard pictograms**



GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**

Aliphatic polyisocyanate  
 hexamethylene diisocyanate

- **Hazard statements**

Harmful if inhaled.  
 May cause an allergic skin reaction.  
 May cause respiratory irritation.

- **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray  
 Wear protective gloves.  
 IF ON SKIN: Wash with plenty of soap and water.  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 Call a POISON CENTER/doctor if you feel unwell.  
 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**

H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H331 Toxic if inhaled.  
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 H335 May cause respiratory irritation.

- **Department issuing SDS:** Productmanagement.

- **Date of preparation / last revision** 07/04/2017 / -

- **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  
 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  
 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

(Contd. on page 8)

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(Contd. of page 7)

*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*

**· \* Data compared to the previous version altered.**

US