IDENTIFICATION

PRODUCT NAME: ADHL-SBRBINDER

MANUFACTURER/SUPPLIER: Adhesiveslab 235 Rayette Rd, Unit #4 Concord, Ontario Canada L4K 2G1 24
HOUR EMERGENCY NUMBER: 1-800-340-7697
PRODUCT DESCRIPTION: ADHL-SBRBINDER

HAZARDS IDENTIFICATION

GHS CLASSIFICATION

- Acute toxicity (oral): Category 4
- Skin corrosion/irritation: Category 2
- Eye irritation: Category 2A
- Respiratory sensitization: 1
- Skin sensitization: Category 1
- Carc. Category 2

SIGNAL WORD ...................................... WARNING

HAZARD STATEMENTS

- H332 Harmful if inhaled.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H351 Suspected of causing cancer.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.

PRECAUTIONARY STATEMENTS

Keep out of reach from children.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P284 [In case of inadequate ventilation] wear respiratory protection.
P302+P352 If on skin: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/attention.
Specific treatment (see on this label).
Get medical advice/attention if you feel unwell.
Get off contaminated clothing and wash it before reuse.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If experiencing respiratory symptoms: Call a poison center/doctor.
Wash contaminated clothing before reuse.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

Health = 3
Fire = 1
Reactivity = 0

HMIS-ratings (scale 0 - 4)
Health = *3
Fire = 1
Reactivity = 0

Other hazards
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous Ingredients</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,4'-methylenediphenyl diisocyanate</td>
<td>10-30</td>
</tr>
<tr>
<td>o-(p-isocyanatobenzyl)phenyl isocyanate</td>
<td>5-10</td>
</tr>
<tr>
<td>diphenylmethanediisocyanate, isomers and homologues</td>
<td>1-5</td>
</tr>
<tr>
<td>4-methyl-m-phenylene diisocyanate</td>
<td>1-5</td>
</tr>
<tr>
<td>2-methyl-m-phenylene diisocyanate</td>
<td>0.1-1</td>
</tr>
<tr>
<td>methylenediphenyl diisocyanate</td>
<td>0.1-1</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

FIRST-AID MEASURES

Description of first aid measures

**General information:**
Immediately remove any clothing soiled by the product.
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. If symptoms persist, consult a doctor.

**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.

FIRE-FIGHTING MEASURES

**Extinguishing media**

**Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

**Special hazards arising from the substance or mixture** During heating or in case of fire poisonous gases are produced.

**Advice for firefighters**

**Protective equipment:** Mouth respiratory protective device.

ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures Mount respiratory protective device.

- Environmental precautions: Do not allow to enter sewers/ surface or ground 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.
Ensure adequate ventilation.

HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING

• Ensure good ventilation/exhaustion at the workplace.
• Open and handle receptacle with care.
• Prevent formation of aerosols.
• Information about protection against explosions and fires: Keep respiratory protective device available.

CONDITIONS FOR SAFE STORAGE

• 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.
  • Specific end use(s) No further relevant information available.

EXPOSURE CONTROLS / PERSONAL PROTECTION

• 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.
  • Specific end use(s) No further relevant information available.

<table>
<thead>
<tr>
<th>CAS NUMBER</th>
<th>Chemical Name</th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-68-8</td>
<td>4,4'-methylene diisocyanate</td>
<td></td>
<td></td>
<td>Ceiling limit value: 0.2 mg/m3, 0.02 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Long-term value: 0.05 mg/m3, 0.005 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ceiling limit value: 0.2* mg/m3, 0.02* ppm *10-min</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Long-term value: 0.051 mg/m3, 0.005 ppm</td>
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<tr>
<td>584-84-9</td>
<td>4-methyl-m-phenylene diisocyanate</td>
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<td></td>
<td>Ceiling limit value: 0.14 mg/m3, 0.02 ppm</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Short-term value: 0.035* mg/m3, 0.005* ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Long-term value: 0.007* mg/m3, 0.001* ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*inh.fraction+vapour; Skin; DSEN, RSEN; BEI</td>
</tr>
<tr>
<td>91-08-7</td>
<td>2-methyl-m-phenylene diisocyanate</td>
<td></td>
<td></td>
<td>Short-term value: 0.035* mg/m3, 0.005* ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Long-term value: 0.007* mg/m3, 0.001* ppm</td>
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<td>*inh.fraction+vapour; Skin; DSEN, RSEN; BEI</td>
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</tbody>
</table>
PERSONAL PROTECTIVE EQUIPMENT

EYE / TYPE
· Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.
· Provide an emergency eye wash station and quick drench shower in the immediate work area.

RESPIRATORY PROTECTION
· During mixing, handling and application: Splash goggles. Full protective clothing. Gloves (impervious). When air concentrations are not known (or above the TLV), an air-supplied respirator is required.

Respiratory Protection Standard (29 CFR 1910.134). In presence of air movement, air-purifying (cartridge type) respirators are not the best protection but can be used, if you replaced them frequently. Change cartridges after 8h max or less due to their low warning properties. When in a confined space wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear.

SKIN PROTECTION/ GLOVES/ CLOTHING
· The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· Material of gloves
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.

PHYSICAL AND CHEMICAL PROPERTIES

- Information on basic physical and chemical properties
  - General Information
    - Appearance:
    - Form: Fluid
    - Color: Clear
    - Odor: Odorless
    - Odor threshold: Not determined.
    - pH-value: Not determined.
    - Change in condition
    - Melting point/Melting range: Undetermined.
    - Boiling point/Boiling range: >300 °C (>572 °F)
    - Flash point: 177 °C (350.6 °F)
    - Flammability (solid, gaseous): Not applicable.
  - Ignition temperature: 520 °C (968 °F)
  - Decomposition temperature: Not determined.
  - Auto igniting: Product is not selfigniting.
  - Danger of explosion: Product does not present an explosion hazard.
    - Explosion limits: Lower: 0.4 Vol %
    - Upper: 0.0 Vol %
  - Vapor pressure: Not determined.
  - Density at 20 °C (68 °F): 1.06 g/cm3 (8.8457 lbs/gal)
  - Relative density: Not determined.
  - Vapor density: Not determined.
  - Evaporation rate: Not determined.
  - Solubility in / Miscibility with
    - Water: Not miscible or difficult to mix.
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: No dangerous reactions known.
· Conditions to avoid: No further relevant information available.
· Incompatible materials: No further relevant information available.
· Hazardous decomposition products: No dangerous decomposition products known.

TOXICOLOGICAL INFORMATION

· Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Compound Description</th>
<th>Route</th>
<th>Value</th>
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<tr>
<td>101-68-8</td>
<td>4,4’-methylene diphenyl diisocyanate</td>
<td>Oral</td>
<td>LD50</td>
</tr>
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<td>Oral</td>
<td>LD50</td>
</tr>
</tbody>
</table>

Primary irritant effect:

· on the skin: Irritant to skin and mucous membranes.
· on the eye: 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
  · IARC (International Agency for Research on Cancer)
  101-68-8 4,4'-methylene diphenyl diisocyanate
  9016-87-9 diphenylmethane diisocyanate, isomers and homologues
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 1 (Self-assessment): slightly hazardous for water
    - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

DISPOSAL INFORMATION

- Waste treatment methods

  - Recommendation:
    - Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
  - Uncleaned packagings:
    - Recommendation: Disposal must be made according to official regulations.

TRANSPORTATION INFORMATION

- UN-Number
- DOT, ADR, ADN, IMDG, IATA Void

- UN proper shipping name
- DOT, ADR, ADN, IMDG, IATA Void

- Transport hazard class(es)
DOT, ADR, ADN, IMDG, IATA
· Class Void

Packing group
· DOT, ADR, IMDG, IATA Void
· Environmental hazards: Not applicable.
· Special precautions for user Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.
· UN "Model Regulation": Void

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.