

**MSDS.433 – AUS-50™ Aliphatic Urethane Sealer**

Revised: 2.12.08

**EMERGENCY ASSISTANCE**

**For Chemical Emergency Spill, Leak, Fire or Exposure call 24 hours a day: CHEMTREC (800) 424-9300. Outside the U.S. call (703) 527-3887 (Collect calls accepted).**

**SECTION I - PRODUCT IDENTIFICATION**

PRODUCT NAME: AUS-50™ Aliphatic Urethane Sealer  
 PRODUCT CLASS: Paint

**SECTION II - COMPOSITION**

| NAME                       | CAS #     | % by Weight | TVL/PEL   | LC50/LD50   |
|----------------------------|-----------|-------------|---|---|
| Homopolymer of HDI         | 2182-81-2 | 60-70%      | N/A   | Oral: Acute 10000 mg/kg (rat)<br>Dermal: Acute 5000 mg/kg (rabbit)                                      |
| Xylene                     | 1330-207  | 10-30%      | TWA 100 STEL<br>150 ppm OSHA  | Oral: Acute 4300 mg/kg (rat)<br>Dermal: Acute 2000 mg/kg (rabbit)                                       |
| (n-) Butyl Acetate         | 123-86-4  | 5-10%       | TWA 150 STEL:<br>200 ppm OSHA<br>TWA 150 STEL:<br>200 ppm ACGIH<br>TWA 700 mg/m <sup>3</sup>  | Vapor: Acute 6700 ppm 4 hr. (rat)<br>Oral: Acute 13100 mg/kg (rat)<br>Dermal: Acute 2000 ppm 4hr. (rat) |
| Hexamethylene Diisocyanate | 822-06-0  | 0-1%        | TWA 0.005 CEIL<br>0.02 ppm<br>TWA 0.035 mg/m <sup>3</sup><br>TWA 0.005 CEIL<br>0.02 ppm NIOSH | Oral: Acute 710 mg/kg (rat)<br>Dermal: Acute 570 mg/kg (rabbit)<br>Vapor: Acute 23 ppm 4 hr. (rat)      |

**SECTION III - HAZARDS**

Routes of entry: Inhalation. Skin contact (absorption). Eye contact. Ingestion.

**Skin:** This product may irritate skin upon contact. Harmful if absorbed through the skin. May cause skin sensitization. Skin inflammation is characterized by itching, scaling reddening or occasionally blistering.

**Eyes:** Liquid or spray mist may irritate eyes. Over exposure may cause severe irritation. Inflammation of the eye is characterized by redness, watering and itching.

**Ingestion:** Harmful if swallowed. May cause nausea, vomiting and headaches. Irritation or chemical burns of the mouth, pharynx, esophagus and stomach can develop following ingestion of this product. Even small amounts of liquid aspirated into lungs during ingestion of from vomiting may cause mild to severe pulmonary injury and possibly death.

**Inhalation:** Harmful if inhaled (irritant sensitizer). Over exposure by inhalation of the vapors/spray mist may product severe irritation of respiratory tract, characterized by coughing, choking or shortness of breath. May cause sensitization by inhalation. May cause nausea, vomiting and general weakness. Massive overexposure can cause unconsciousness and death.

|              |                  |                |              |
|--------------|------------------|----------------|--------------|
| HMIS RATING: | Health – 3       | HAZARD RATING: | 4 = Severe   |
|              | Flammability – 3 |                | 3 = Serious  |
|              | Reactivity – 0   |                | 2 = Moderate |
|              |                  |                | 1 = Slight   |
|              |                  |                | 0 = Minimal  |

**SECTION IV - FIRST AID**

**Skin:** Wash skin with non-abrasive soap and water while removing contaminated clothing. Get medical attention if irritation persists.

**Eyes:** Flush immediately with lukewarm water for at least 15 minutes and keep eyelids open. Do not use eye ointment. Get medical attention if irritation persists.

**Ingestion:** Do not induce vomiting because of danger of aspirating liquid into lungs. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor breathing. GET IMMEDIATE MEDICAL ATTENTION.

**Inhalation:** Remove to fresh air. If not breathing, provide artificial respiration. GET IMMEDIATE MEDICAL ATTENTION.

**SECTION V - FIRE & EXPLOSION DATA**

Flammability of the product:

Flammable

Auto ignition temperature:

The lowest known value is 789.8° F (421° C) (n-Butyl Acetate).

**Flash Point:** The lowest known value is CLOSED CUP 75.2° F (75.2° C). (Tagliabue)  
OPEN CUP 100° F (37.8° C). (Cleveland) (Xylene).

**Flammable Limits:** The greatest known range is LOWER: 1.4% UPPER: 7.6% (n-Butyl Acetate).

**Products of Combustion:** Carbon oxides (CO, CO2) and other toxic compounds (nitrogen, oxides, isocyanate vapors and traces of hydrogen cyanide).

**Fire Hazards in Presence of Various Substances:** Flammable in presence of open flames and sparks.

**Explosion Hazards in presence of various substances:** Risks of explosion of the product in presence of mechanical impact: Not available. Risk of explosion of the the product in the presence of static discharge: Yes.

**Basic Firefighting Procedures:**

- Vapor may travel considerable distance to source of ignition and flash back. When heated to decomposition it emits highly toxic fumes.
- Use water spray, dry chemical, alcohol foam, all purpose AFFF or carbon dioxide to extinguish fire. Evacuate area and fight fire from a safe distance.
- If leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak.
- Use water spray to cool adjacent structures and protect personnel.
- Firefighters must wear MSHA/NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

Special Remarks on Fire Hazard: Vapor may travel considerable distance to source of ignition and flash back. When heated to decomposition it emits highly toxic fumes.

Special Remarks on Explosion Hazards: Container explosion may occur under fire conditions or when heated (due to pressure build up). Vapor forms explosive mixture with air between upper and lower flammable limits.

**SECTION VI - REACTIVITY DATA**

**Stability:** Stable.

**Instability Temperature:** Not available

**Conditions of Instability:** Not available

**Incompatibility with various substances:** Incompatible with water, strong oxidizing agents, amines, strong bases, strong acids, alcohols. Absorbs moisture from the air. Reacts slowly with water to liberate CO2 gas.

**Corrosivity:** Not considered to be corrosive for glass or metals.

**Conditions to avoid:** Excessive heat, poor ventilation, corrosive atmospheres, excessive aging.

**SECTION VII - SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED**

**OR SPILLED:** Eliminate ignition sources, provide good ventilation. Dike spill area and add absorbent earth or sawdust to spilled liquid. thoroughly wet with water and mix.

**WASTE DISPOSAL METHOD:** Collect absorbent/water/spilled liquid mixture into metal containers and add enough water to cover. Consult local state and federal waste regulator before disposing into approved hazardous waste landfills. Obey relevant laws.

**SECTION VIII - SAFE HANDLING AND USE INFORMATION**

**RESPIRATORY PROTECTION:** When using this material, use a NIOSH approved cartridge respirator or gas mask suitable to keep airborne mists vapor concentrations below the time weighted threshold limit values. When using in poorly ventilated and confined spaces, use a fresh-air supplying respirator of a self-contained breathing apparatus.

**VENTILATION:** General mechanical ventilation or local exhaust should be suitable to keep vapor concentrations below TLV. Ventilation equipment must be explosion proof.

**PROTECTIVE GLOVES:** Impermeable chemical gloves for skin protection.

**EYE PROTECTION:** Use chemical safe glasses, goggles and face shields for eye protection.

**OTHER PROTECTIVE EQUIPMENT:** Use impermeable aprons and protective clothing whenever possible to prevent skin contact.

**HYGENIC PRACTICES:** Eye washes and safety showers in the work place is recommended.

**SECTION IX - SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Avoid hot metal surfaces. Use in cool well ventilated areas. Keep containers closed when not in use. Keep away from open flames and excessive heat. Use non-sparking items when using this material.

**OTHER PRECAUTIONS:** Smoking in areas where this material is used should be strictly prohibited.

Keep away from heat, sparks and flame. Vapors may cause flash fire. Do not smoke. Extinguish all flames and pilot lights and turn off stoves, heaters, electric motors and other sources of ignition during use until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation.

#### SECTION X - PROPERTIES

|                              |   |
|------------------------------|---|
| <u>Appearance:</u>           | Gloss – clear liquid with yellow or red hues. Satin – opaque solid.   |
| <u>Odor:</u>                 | Moderate, Aromatic Odor   |
| <u>Boiling Point:</u>        | 259.7° F (126.5° C) n-Butyl Acetate   |
| <u>Melting Point:</u>        | May start to solidify at 2.2° F (-19° C) based on data for homopolymer of HDI. Weighted average:<br>17.3° F (-27.41° C) |
| <u>Vapor Pressure:</u>       | The highest known value is 8mm of Hg (@20° C) (n-Butyl Acetate). Weighted average: 7.04 mm of Hg.                       |
| <u>Vapor Density:</u>        | Highest known value is 4 (air = 1) (n-Butyl Acetate). Weighted average is 3.78 (air = 1).                               |
| <u>Solubility:</u>           | Insoluble in water  |
| <u>Specific Gravity</u>      | 0.98 – 1.08 (water = 1)   |
| <u>Volatility:</u>           | 36+/-2% (v/v). 42+/-2% (w/w)  |
| <u>Odor Threshold:</u>       | Isocyanate vapors cannot be smelled until concentrations are well above the safe exposure limit.                        |
| <u>Evaporation Rate</u>      | 0.72 (xylene) compared to Butyl Acetate.  |
| <u>Critical Temperature:</u> | Not available   |

#### SECTION XI - TRANSPORTATION

DOT Classification: 3: Flammable Liquid with a flash point lower than 100° F. PGIII, UN 1263 Paint.