

## MATERIAL SAFETY DATA SHEET

### SECTION 1 – MATERIAL IDENTIFICATION AND USE

**Material Name:** Lead Acetate Impregnated Paper Tape and/or fiber  
**Use:** Hydrogen sulphide sensing  
**WHMIS Classification:** Class D2A: Very Toxic Material  
 Class D2B: Toxic Material  
  
**Manufacturer/Supplier:** Envent Engineering Ltd.  
 Bay E, 7060 Farrell Road SE  
 CALGARY, ALBERTA, CANADA, T2H 0T2  
**Emergency Telephone:** (403)-253-4012  
  
**Chemical Family:** Metal salt of organic acid

### SECTION 2 – HAZARDOUS INGREDIENTS OF MATERIAL

| Hazardous Ingredients | Approximate Concentrations % | C.A.S. Nos. | LD50/LC50 Specify Species & Route          | Exposure Limits  |
|-----------------------|------------------------------|-------------|--|--|
| lead acetate          | 6.0 – 6.5                    | 301-04-2    | 4665 mg/kg, oral, rat;<br>11000 mg/kg, rat | 0.05 mg/m <sup>3</sup> (OEL)<br>0.05 mg/m <sup>3</sup> (TLV) |

OEL = 8 hr. Alberta Occupational Exposure Limit (as lead)

TLV = Threshold Limit Value – Time-Weighted Average (as lead)

### SECTION 3 – PHYSICAL DATA FOR MATERIAL

**Physical State:** Solid  
**Specific Gravity:** N.Av.  
**Vapour Density (air=1):** N.App.  
**Percent Volatiles, by volume:** 0  
**Odour & Appearance:** odourless or possible slight odour of vinegar; white paper tape  
**Melting Pt. (deg.C):** 75 degrees  
**pH:** 5.5-6.5  
**Coefficient of Water/Oil Distribution:** >10  
 (N.AV. = not available N.App. = not applicable)

**Vapour Pressure (mmHg):** N.App.  
**Odour Threshold (ppm):** N.Av.  
**Evaporation Rate:** N.App.  
**Boiling Pt. (deg.C):** decomposes at 200 degrees

### SECTION 4 – FIRE AND EXPLOSION

**Flammability:** Yes – paper tape will burn (lead acetate not combustible)      **Conditions:** Open flame  
**Means of Extinction:** Foam, CO<sub>2</sub>, dry chemical.  
**Special Procedures:** Wear SCBA, due to presence of toxic lead fume.  
**Flash Point (deg.C) & Method:** N.App.      **Hazardous Combustion Products:** Lead fume, carbon monoxide  
**Lower Explosive Limit (% by vol.):** N.App.      **Upper Explosive Limit (% by vol.):** N.App.  
**Sensitivity to Impact:** No      **Sensitivity to Static Discharge:** No  
**Auto Ignition Temp. (deg.C):** N.App.      **TDG Classification:** Not regulated

### SECTION 5 – REACTIVITY DATA

**Chemical Stability:** Yes      **Conditions:** N.App.  
**Incompatibility:** Yes      **Substances:** Strong oxidizing agents (e.g. perchlorates, peroxides), acids (e.g. sulphuric acid), and bases (e.g. sodium and potassium hydroxides).  
**Reactivity:** Yes, with iron, steel, aluminum, copper, bronze and brass      **Conditions:** Heat, strong sunlight  
**Hazardous Decomposition Products:** Lead and acetic acid

## SECTION 6 – TOXICOLOGICAL PROPERTIES OF PRODUCT

### Routes of Entry:

**Skin Absorption** No

**Skin Contact:** No

**Eye Contact:** Yes - irritation

**Inhalation: Acute:** Yes

**Chronic:** Yes

**Ingestion:** Yes

**Effects of Acute Exposure:** Not likely to be a problem, except in fire situation. However, effects may include headache, nausea, fatigue, abdominal cramps and joint pains. Contact with eyes may cause irritation. Although not readily absorbed through intact skin, an unprotected wound may allow entry into bloodstream.

**Effects of Chronic Exposure:** May cause loss of appetite, colic with abdominal pain, cramps, nausea, vomiting, constipation and weight loss. Red blood cell function and production may be impaired, possibly leading to anaemia. Effects on the nervous system include forgetfulness, irritability, decreased sex drive and possibly impotence, dizziness and depression. Progressive degeneration of the brain can occur with prolonged high exposures. Damage to peripheral nerves can lead to weakness in arms, legs, wrists, ankles and fingers. Kidney damage may occur with long term exposure. Evidence exists that long term exposure to lead compounds increases the risk of cancer. The International Agency for Research on Cancer has classified inorganic lead compounds as 2B, possibly carcinogenic to humans. Exposure to lead during pregnancy may cause increased risk of miscarriage and neurobehavioral effects on the fetus. Exposure of males to lead may cause low sperm counts and other adverse effects on sperm.

**Sensitization to Product:** No.

**Exposure Limits of Product:** 0.05 mg/m<sup>3</sup> (OEL and TLV, as lead);

**Irritancy:** Eye irritant

**Synergistic Materials:** Certain nitroso- and amide chemicals may increase kidney toxicity.

**Carcinogenicity:** Possibly **Reproductive Effects:** Yes **Teratogenicity:** Possibly **Mutagenicity:** Yes

## SECTION 7 – PREVENTIVE MEASURES

### Personal Protective Equipment:

**Gloves:** Nitrile, neoprene, PVC, natural rubber

**Respiratory:** Not necessary for routine handling of tape

**Eye:** Not required\* **Footwear:** No special requirements\* **Clothing:** No special requirements\*

(\*except as required as part of standard equipment by site safety policy)

**Engineering Controls:** No special requirements for routine use.

**Leaks & Spills:** N.App.

**Waste Disposal:** Dispose as hazardous waste. Do not put in regular garbage. Ensure compliance with regulatory requirements.

**Handling Procedures & Equipment:** Wear impervious gloves (not leather or cotton – see above). Avoid abrasion to tape (which might generate dust).

**Storage Requirements:** Store in a cool, dry, well ventilated area away from heat, strong sunlight and ignition sources.

**Special Shipping Information:** Not regulated by TDG.

## SECTION 8 – FIRST AID MEASURES

**Skin:** Wash skin areas to remove contamination.

**Eye:** Immediately flush with large amounts of luke warm water for 15 minutes, lifting upper and lower lids at intervals. Seek medical attention if irritation persists.

**Inhalation:** N.App.

**Ingestion:** If accidental ingestion of tape occurs, induce vomiting\*\*. Seek medical attention.  
(\*\*Except – never induce vomiting in a patient who is unconscious or convulsing.)

## SECTION 9 – PREPARATION OF MSDS

Prepared By: Envent Engineering Ltd.

Preparation Date:

July 30, 2009

Phone Number: (403) 253-4012

Expiry Date:

July 30, 2012