

As part of Northwest Coatings Corp.'s program to communicate health and safety information to our customers, we regularly review and update our MSDS to provide information that is as complete and current as possible. The attached MSDS is the current update for the product that we currently supply to your company. If any hazardous components are present, they will be listed in the MSDS section II Hazardous Components along with the CAS number and the percent present in the compound. Information is also reported in Section II to meet the requirements of SARA Title III – Section 313.

This memo is part of the MSDS and must not be detached from the MSDS. Any copying or redistribution of the MSDS shall include this memo. We suggest you read the enclosed material closely and forward it to the appropriate personnel within your company. If you have any questions about this information, please contact us at 414-762-3330 or Chemtrec at 1-800-424-9300.

NORTHWEST COATINGS CORP.

NORTHWEST COATINGS CORP.

Material Safety Data Sheet

Product # 23225

PAGE 2 of 5

NORTHWEST COATINGS CORP.
7221 SOUTH 10th STREET
OAK CREEK, WI 53154 USA
PHONE: 414-762-3330

EMERGENCY PHONE NUMBER: Chemtrec 800-424-9300
PREPARED BY: Martin C. Baur
PREPARATION DATE: June 8, 2005
REVISION DATE: N/A

I. PRODUCT IDENTIFICATION

PRODUCT: 23225

HMIS CODE

TRADE NAME: Laminating Adhesive

HEALTH: 1

FLAMMABILITY: 1

CHEMICAL NAME: Formulated Adhesive

REACTIVITY: 0

PERSONAL PROTECTION: C

CHEMICAL FAMILY: Acrylic copolymer and Polyvinyl Acetate Emulsions

II. HAZARDOUS COMPONENTS

<u>COMPONENT</u>	<u>CAS NUMBER</u>	<u>Weight %</u>	<u>Regulated Under SARA 313</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>
Vinyl acetate monomer	108-05-4	<0.4	Yes	10ppm	10ppm

III. PHYSICAL PROPERTIES

BOILING POINT (water 212°F): >212°F

SPECIFIC GRAVITY: 1.0-1.1

VAPOR PRESSURE (MM HG at 20°C): 17mm

WEIGHT PERCENT VOLATILE: 34-38%

VAPOR DENSITY (air=1): Greater than air

WEIGHT % VOC: NA

SOLUBILITY IN WATER: Miscible

pH: 4-7

APPEARANCE AND ODOR: White liquid with a sweet and pleasant odor

EVAPORATION RATE (n-Butyl Acetate=100): <100

NORTHWEST COATINGS CORP.

Material Safety Data Sheet

Product # 23225

PAGE 3 of 5

IV. REACTIVITY DATA

STABILITY: Stable. Stable at ambient temperatures. Coagulation may occur following freezing, thawing or boiling.

CONDITIONS TO AVOID: High heat and freezing

INCOMPATIBILITY (material to avoid): Strong oxidizers, mineral acids, alkalis, and materials that react with water.

HAZARDOUS DECOMPOSITION PRODUCTS: Dried product will burn. Products of thermal decomposition depend upon formulation conditions (such as pH>7); the level of acetaldehyde may increase as a result of hydrolysis of residual vinyl acetate monomer. Oxides of carbon along with other toxic fumes may be given off due to thermal decomposition.

HAZARDOUS POLYMERIZATION: Will not occur.

V. FIRE & EXPLOSION HAZARD DATA

FLASH POINT (°F): NA **FLAMMABLE LIMITS:** NA **LEL:** NA **UEL:** NA

EXTINGUISHING MEDIA: Water, carbon dioxide, foam

SPECIAL FIRE FIGHTING PROCEDURES: Wear a NIOSH/MSHA approved self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Wear appropriate personal protective equipment.

UNUSUAL FIRE & EXPLOSION HAZARDS: Product will not burn as sold. Product may splatter when heated to boiling. Dry product film will burn, producing water, carbon dioxide, carbon monoxide and smoke.

VI. HEALTH HAZARD DATA

A. LISTED CARCINOGENICITY: **IARC -** Class IIB **NTP -** No **OSHA -** No

This product contains a small amount of vinyl acetate monomer. ACGIH evaluated vinyl acetate as an A3- Animal Carcinogen: Available evidence suggests that the agent is not likely to cause cancer in humans except under uncommon or unlikely routes of exposure. IARC published a monograph on vinyl acetate. In this monograph IARC indicates "there is inadequate evidence in humans for carcinogenicity of vinyl acetate. There is limited evidence in experimental animals for carcinogenicity of vinyl acetate." Normally, this lack of conclusive evidence would place a substance in the IARC Category 3 classification (Not classified a human carcinogen). However, because vinyl acetate is metabolized to acetaldehyde, which has a 2B (Possibly carcinogenic to humans) classification, it is also has been listed under Category 2B. This product has been tested and shown not to cause sensitization in guinea pigs.

B. EFFECTS OF OVEREXPOSURE

EYE: Direct exposure to eyes may cause irritation.

SKIN: Prolonged and/or repeated contact may cause irritation or dermatitis.

INHALATION: Inhalation of vapors may cause respiratory irritation and may cause asthmatic response in persons with asthma who are sensitive to such irritants.

INGESTION: Not an anticipated route of exposure but may cause gastric irritation.

KNOWN EFFECTS ON OTHER ILLNESS: None known

NORTHWEST COATINGS CORP.

Material Safety Data Sheet

Product # 23225

PAGE 4 of 5

C. EMERGENCY AND FIRST AID PROCEDURES

- EYE:** Flush with large amounts of water for at least 15 minutes and seek medical attention
- SKIN:** Remove contaminated clothing and wash affected area with soap and water. Contact a physician if irritation develops or persists.
- INHALATION:** Remove to fresh air and avoid further inhalation. If breathing remains difficult seek medical attention.
- INGESTION:** Get medical attention. Remove stomach contents by suction or induce vomiting only as directed by medical personnel. Do not attempt to give anything by mouth to a drowsy or unconscious person.

D. PROTECTIVE EQUIPMENT

- EYE:** The use of safety glasses (ANSI Z87.1 or equivalent) is recommended as good industrial practice. Wear splash proof safety eye protection if splashing or misting of product may occur.
- SKIN:** Where skin contact can occur, wear impervious gloves.
- VENTILATION:** Local exhaust. to maintain vapors below OSHA and ACGIH exposure limits in Section II.
- RESPIRATORY PROTECTION:** Not usually required if ventilation is adequate. An organic vapor respirator NIOSH approved for organic vapors is recommended under emergency conditions.
- OTHER PROTECTIVE EQUIPMENT:** Eye wash facility and a safety shower should be available

VII. PRECAUTIONS FOR SAFE HANDLING AND STORAGE

A. STEPS TO BE TAKEN IN CASE OF SPILL OR LEAK

Use absorbent to dike spill. Keep unnecessary people away. Floor may become slippery. Stop discharge if it is safe to do so. Ventilate the area and shut off or remove all ignition sources. Absorb liquid into an inert material and shovel mixture into an approved container. If spill has dried scrape up and place in an approved container. Spill area can be washed with water; collect wash water for approved disposal. Do not flush to storm sewer or waterway.

B. HANDLING AND STORAGE:

Do not freeze. Containers should be completely drained and left open. Empty containers may contain product so follow all recommendations in this MSDS. Store in closed containers at temperatures between 40-100°F. Wash thoroughly after handling, especially before eating, smoking or use of toilet facilities. Limit unnecessary exposure for safety and immediately remove compound from body and clothing with proper washing methods.

VIII. OTHER DISPOSAL INFORMATION

Waste Disposal: Disposal of this product must comply with all applicable federal, state, and local regulations. Container Disposal: Empty containers may contain product residue; follow MSDS and label warnings even after they have been emptied. Disposal of containers should comply with all federal, state and local regulations.

NORTHWEST COATINGS CORP.

Material Safety Data Sheet

Product # 23225

PAGE 5 of 5

IX. SPECIAL PRECAUTIONS

Regulatory Update on Vinyl Acetate Monomer

The International Agency for Research on Cancer (IARC) is an agency that evaluates research on chemicals and classifies them according to carcinogenicity. February 1995 IARC voted to revise the classification of vinyl acetate monomers to a "possible human carcinogen". This category is generally used for chemicals with limited evidence of carcinogenicity in humans or in experimental animals. Currently, human and animal data on vinyl acetate monomer does not constitute ranking as a carcinogen. This reclassification is based on information that vinyl acetate monomer is converted in the body to acetaldehyde. Acetaldehyde is listed as a possible human carcinogen.

Background on Vinyl Acetate Monomer

Vinyl acetate monomer is a colorless liquid that is used as a chemical building block in the manufacture of a variety of industrial and consumer products. Nearly half of all vinyl acetate monomer produced in the US is used for polyvinyl acetate production. These polymers are used in paints, adhesives, textile sizings and finishes, nonwoven textile binders, paper coatings and specialty coatings for flexible substrates.

The American Conference of Governmental Industrial Hygienists (ACGIH) has established a Threshold Limit Value (TLV) for vinyl acetate monomer at 10 ppm as an eight-hour time-weighted average. The 15-minute average or Short Term Exposure Limit (STEL) is set at 15 ppm. The exposure limit was based on the irritant effects of vinyl acetate to the eyes and upper respiratory system and is not changed as a result of IARC's reclassification.

The odor threshold for vinyl acetate monomer is 0.5 ppm, indicating that most people can smell it at concentrations well below the exposure limit. Vinyl acetate smells much like ether. Most people find concentrations above 20 ppm to be irritating to the eyes and respiratory tract.

Background on Acetaldehyde

Vinyl acetate monomer was reclassified to a possible human carcinogen because the human body breaks it down to acetaldehyde. Acetaldehyde is a designated possible human carcinogen based upon animal data. This designation is not supported by human evidence of carcinogenicity. It is important to note that acetaldehyde is considered by the FDA to be "Generally Recognized as Safe" and is also approved for use as a food additive and flavoring agent. It is an important component of food flavorings added to milk products, baked goods, fruit juices, candy, desserts and soft drinks. The concentration of acetaldehyde in food is usually up to 0.047%. Acetaldehyde is naturally found in a variety of fruits and may form in wine and other alcoholic beverages after exposure to air. It is a major metabolite of ethyl alcohol.

Northwest Coatings Products

This product contains .1% or more of vinyl acetate monomer. We are required by law to include the new IARC information with regard to vinyl acetate monomer.

As a commitment to our customer, we will continue to evaluate materials with reduced levels of VAM, as they become available in the marketplace. If you have any questions or need assistance, please contact your Northwest Coatings Sales representative.