

# School Material Safety Data Sheet

From the Reference Collection of  
Genium Publishing Corporation  
1145 Catalyn Street  
Schenectady, NY 12303-1836 USA  
(518) 377-8855



No. 110

n-AMYL ACETATE

February 1987

## SECTION 1. INTRODUCTORY INFORMATION

**MATERIAL NAME AND FORMULA:** n-AMYL ACETATE;  $C_7H_{14}O_2$   
**SYNONYMS:** 1-Pentyl Acetate, Amyl Acetic Ester,  $CH_3COO(CH_2)_4CH_3$   
**CAS NUMBER:** 0628-63-7  
**INGREDIENTS:** n-Amyl Acetate, >90%  
**DOT CLASSIFICATION:** Flammable Liquid

**MANUFACTURERS:** Always request Material Safety Data Sheets from your chemical supplier. These should indicate the manufacturer of the substance and include an emergency phone number to call. The Manufacturers section of this book contains a listing of some of the larger manufacturers and available emergency numbers.



**DESCRIPTION:** A colorless liquid with a banana or pearlike odor. Threshold odor concentration 50% recognition, 0.15 ppm. (Good warning properties).

**INTRODUCTORY INFORMATION:** A highly flammable, liquid solvent. Can irritate skin, eyes, and respiratory tract. Should be handled with care. Most common area of use would be in the chemistry lab.

## SECTION 2. USE AND STORAGE INFORMATION

### — PRELIMINARY PLANNING CONSIDERATIONS —

- Safety glasses or goggles and protective clothing (rubberized apron, etc.) should be worn for all experiments.
- Be sure eyewash station and safety shower are in good working order and readily available.
- For safety, contact lenses should not be worn in the laboratory: Soft lenses may absorb and all lenses may concentrate irritants.
- Always provide for safe disposal of all chemical waste generated in the lab. Check applicable regulations prior to use.
- Eliminate all possible sources of ignition. Nearby electrical service and equipment should be explosion proof (no spark-generation potential).
- Whenever possible, substitute less hazardous solvents.
- Impermeable nitrile rubber gloves recommended when working with this material. Avoid skin contact.
- Solvent effects can damage some plastics, rubbers, finishes, and coatings.
- Thermal oxidative degradation can yield CO and acrid fumes.

### — USAGE PRECAUTIONS AND PROCEDURES —

- READ THE LABEL and follow all precautions.
- Maintain good housekeeping practices to avoid unintentional mixing with incompatible materials.
- Do not breathe vapors -- use and dispense only in a fume hood.
- No smoking in storage or use area.
- Keep away from strong oxidizing agents and sources of heat or ignition.
- After working with this material, always wash hands and face before eating, drinking, or smoking.

### — ADDITIONAL INFORMATION —

- **Contact lens wearers:** soft lenses may absorb and all lenses may concentrate irritants. For safety, contact lenses should not be worn in the laboratory.
- Incompatible with nitrates, strong oxidizers, alkalis, and acids.
- Amyl acetate's characteristic odor may mask presence of other more toxic chemicals such as benzene, ether, etc.
- This is a stable material in closed containers at room temperature under normal storage and handling conditions. It does not polymerize.

### — PREFERRED STORAGE LOCATION AND METHODS —

- Storage area should be cool and well ventilated. Containers should be tightly closed.
- Do not store chemicals alphabetically by name; store by chemical family instead to keep compatibles together.
- All chemical containers should be protected from physical damage and kept out of direct sunlight.
- Purchase only amounts equivalent to one year's needs.
- Should be stored in approved FLAMMABLES cabinet.
- Smoking should not be permitted in any chemical storage area.

## SECTION 3. SPILLS & DISPOSAL PROCEDURES

### IF MATERIAL IS SPILLED:

- Evacuate unnecessary personnel.
- Eliminate all possible sources of ignition. Nearby electrical service and equipment should be explosion proof (no spark-generation potential).
- Provide maximum explosion-proof ventilation.
- Cleanup personnel should have protection against inhalation of vapors or skin contact.
- Cover material with an inert solid absorbent (vermiculite, dry sand, etc.) and scoop into appropriate container for disposal in accordance with existing regulations. Use nonsparking tools for cleanup.

### DISPOSAL OF SMALL QUANTITIES:

- Small quantities of waste material can be evaporated in a fume hood or burned in an incinerator if approved methods and applicable regulations are followed.
- Do not flush down drains (explosion hazard)

**DISPOSAL OF LARGER AMOUNTS:** Contact a licensed disposal company.

\*\*\* FOLLOW ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS FOR ALL WASTE DISPOSAL \*\*\*

## SECTION 4: HEALTH HAZARDS

Current OSHA PEL and ACGIH TLV: 8-hr. TWA: 100 ppm. (525 mg/m<sup>3</sup>)

- STEL: 150 ppm; 800 mg/m<sup>3</sup>
- n-Amyl acetate is not listed as a carcinogen by the NTP, IARC, or OSHA.
- Human, Inhalation, TCLo: 5000 mg/m<sup>3</sup>/30 min. TFX: IRR = Toxic effect irritation
- Human, Eye, 300 ppm: Eye irritation.
- Excessive inhalation of vapors is irritating to the upper respiratory tract and accompanied by dryness and burning of the throat. Exposure to 1000 ppm for 30 minutes will produce headache, fatigue, excessive salivation, and eye irritation. It can have a narcotic effect at still higher overexposures.
- Prolonged or repeated skin contact may cause skin irritation. Liquid contact or vapor concentrations at 300 ppm for 5 minutes can cause a burning sensation in the eyes.
- No chronic systemic effects have been found in human exposure.

## SECTION 5: FIRST AID PROCEDURES

## Eye contact:

- Flush eyes promptly with plenty of running water for at least 15 minutes, including under the eyelids.
- Get medical attention if irritation persists.\*

## Skin contact:

- Flush affected area with large amounts of water.
- Remove contaminated clothing promptly to avoid flammability hazard.
- Get medical attention if irritation persists.\*

## Inhalation:

- Remove patient to fresh air; restore and/or support breathing as necessary.
- Get medical help for coughing or breathing difficulty.\*

## Ingestion:

- Get prompt medical attention.\*
- If physician is not immediately available, give three glasses of milk or water to drink and induce vomiting -- but ONLY if victim is conscious and alert.
- Never give anything by mouth to a person who is unconscious or convulsing.

\* Get medical help (in school, community, paramedic) for treatment, observation, and support after first aid.

## SECTION 6: FIRE PROCEDURES AND DATA

Extinguishing media: Carbon dioxide, dry chemical or "alcohol" type of foam.

- For major fires, for fires involving a number of chemicals, or if large quantities of this material are involved, fire fighters should wear appropriate protective clothing and use respiratory protection. Self-contained breathing apparatus is recommended.
- Use of a direct water stream may scatter fire.
- A water spray may be used to cool fire-exposed containers and disperse vapors.
- The heavier-than-air vapors may flow along surfaces to distant sources of ignition and "flash back."

THERMAL-OXIDATIVE DEGRADATION PRODUCTS INCLUDE: Carbon monoxide and acrid fumes.

FLASH POINT AND METHOD(S) ( CC ) ... >25°C (77°F)\*

AUTOIGNITION TEMPERATURE ... 360°C (680°F)

FLAMMABILITY LIMITS IN AIR ( vol. % ) :

lower ... 1.1 upper ... 7.5

\* Various data reported: obtain details from supplier for specific product purchased.

## SECTION 7: PHYSICAL DATA

BOILING POINT (@ 1 atm) ... 146°C (295°F)

VAPOR PRESSURE @ 20°C, mm Hg) ... 4

VAPOR DENSITY (Air = 1) ... 4.5

SOLUBILITY IN WATER (@ 20°C) ... 0.2

SPECIFIC GRAVITY (20°/4°C) ... 0.88

MELTING POINT ... -70.8°C

MOLECULAR WEIGHT ... 130.18

EVAPORATION RATE (BuAc = 1) ... 0.42

DATA SOURCES: Genium's Industrial MSDS #487 (3/82) and references 1, 2, 4, 6-12, 14, 16, 23, 24, 31, 37, 38, 45, 47, 501, 503, 504, 505, (see glossary for titles) 509, 518.

Judgements as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of such information, Genium Publishing Corp. extends no warranties, makes no representations and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.

F

Approvals:

Author

Indust. Hygiene/Safety

6 Medical Review