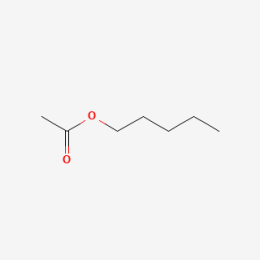
Technical Data Sheet

Amyl Acetate ACS Grade

ACS Grade

Alliance Code	Revised	Revision
amyl-acetate-acs-grade	2026-10-08	1.5

CAS number 628-63-7	UN number UN1104	Hazard class · packing group 3 · PG III
 Structure · PubChem	Grade ACS Grade	Signal word **Warning**
Hazards Flammable · Irritant / harmful · H226 H319 H335		
Proper shipping name Amyl acetates		

IDENTITY & COMPOSITION

PRODUCT NAME
Amyl Acetate ACS Grade

ALLIANCE CODE
amyl-acetate-acs-grade

GRADE
ACS Grade

CONCENTRATION
—

CAS NUMBER
628-63-7 PubChem

FORMULA
CH3COOC5H11 PubChem

PRODUCT TYPE
Pure substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Assay (amyl acetate)	98.0% (minimum)	—	—	Interpreted

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Acidity (as CH3COOH)	0.01% (maximum)	—	—	Interpreted
Color, Pt-Co	15 (maximum)	—	—	Interpreted
Non-volatile Matters	0.01%	—	—	Interpreted
Water (w/w)	0.2% (maximum)	—	—	Interpreted
Distillation range (760 mmHg)	146 - 150 C	—	ASTM D1078	Interpreted
Identification	Conforms to reference spectrum	—	Infrared spectroscopy (FTIR)	Interpreted

Values are reproduced from the current product reference. Source labels do not by themselves establish a supplier guarantee or a test result for your lot. Confirm applicable acceptance limits and request lot-specific documentation.

AVAILABLE GRADES SAME CAS, ALTERNATE GRADES AND CONCENTRATIONS

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
THIS GRADE ACS Grade	—	—	current
Technical	—	—	amyl-acetate

Typical assay for each grade is the average of its recent lots. Confirm a grade meets your specification before substituting it.

PHYSICAL & CHEMICAL PROPERTIES

PROPERTY	VALUE	SOURCE
Appearance	Clear colorless liquid, volatile, slight fruity...	Adjudicated
Form	Liquid	Published reference
Odor	Sweet, banana-or pear-like	Adjudicated
Specific Gravity	0.870–0.875 at 25 °C (water = 1)	Adjudicated
Density	0.876 at 68 °F (USCG, 1999) - Less dense than water; will float	Published reference
Boiling Point	146–150 °C (295–302 °F) distillation range	Adjudicated
Melting Point	-71 °C (-96 °F)	Adjudicated
Flash Point	23–25 °C (73–77 °F), closed cup	Adjudicated
Vapor Pressure	4 mmHg (5.3 hPa) at 20 °C	Adjudicated
Vapor Density	4.5 (air = 1)	Adjudicated
Solubility (water)	Slightly soluble in water (up to about 10 g/L at 20 °C); miscible with alcohols, ethers and most organic solvents	Adjudicated
Refractive Index (nD 20)	1.4000 - 1.4040	Interpreted

Polar solvent — purity vs. intended end-use (electronics, pharma, general industrial) is the dominant grade consideration. See application guidance for grade selection.

MATERIALS OF CONSTRUCTION SERVICE ENVELOPE ≈ 100%

MATERIAL	RATING	MAX T (°C)	NOTES	SOURCE
Buna-N (NBR) Elastomer	Fair	60	Acceptable for alcohols; poor for ketones.	Parker O-ring Chemical Compatibility

MATERIAL	RATING	MAX T (°C)	NOTES	SOURCE
EPDM Elastomer	Fair	—	Good for alcohols, poor for esters	Cole-Parmer Chemical Compatibility
Viton (FKM) Elastomer	Fair	80	Swells in acetone and esters; avoid for those.	Parker O-ring Chemical Compatibility
FFKM (Kalrez) Fluoropolymer	Excellent	200	Premium ester / ketone sealing	Cole-Parmer Chemical Compatibility
PTFE Fluoropolymer	Excellent	200	Universal solvent compatibility.	Cole-Parmer Chemical Compatibility
Borosilicate Glass Glass Ceramic	Excellent	100	Universally inert.	Cole-Parmer Chemical Compatibility
316L Stainless Steel Metal	Excellent	80	Inert; preferred for high-purity solvent service.	Cole-Parmer Chemical Compatibility
Aluminium Metal	Good	40	Acceptable; avoid prolonged wet contact	Cole-Parmer Chemical Compatibility
Carbon Steel Metal	Fair	50	Trace moisture causes rust; flash-rust prevention required.	Cole-Parmer Chemical Compatibility
HDPE Thermoplastic	Fair	40	Swells with many polar solvents; verify per solvent.	Cole-Parmer Chemical Compatibility
PP Thermoplastic	Good	50	Acceptable but watch swelling with esters	Cole-Parmer Chemical Compatibility
PVC Thermoplastic	Fair	25	Esters soften PVC; avoid for esters	Cole-Parmer Chemical Compatibility

Ratings reflect the service envelope (concentration × temperature) shown. Always confirm against your specific duty cycle and contact-time before equipment selection. The most cautious rating across overlapping references is shown.

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER
UN1104 Adjudicated

HAZARD CLASS
3 Adjudicated

PACKING GROUP
III Adjudicated

PROPER SHIPPING NAME
Amyl acetates Adjudicated

GHS / OSHA HCS 2024

SIGNAL WORD
Warning Adjudicated

H-CODES (HAZARD STATEMENTS)
H226, H319, H335 Adjudicated

P-CODES (PRECAUTIONARY STATEMENTS)
P210, P233, P240, P241, P242, P243, P261, P264, P271, P280, P304+P340, P305+P351+P338, P312, P337+P313, P403+P233, P403+P235, P405, P501

Adjudicated

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)
100 ppm TWA OSHA 29 CFR 1910.1000

ACGIH TLV
50 ppm TWA; 100 ppm STEL (pentyl acetate, all isomers)

Adjudicated

NIOSH REL
100 ppm (525 mg/m^3) TWA Adjudicated

NIOSH IDLH
1,000 ppm Adjudicated

Transport descriptions reflect 49 CFR 172.101 lookup at time of publication. Sourced data: NIOSH Pocket Guide for REL/IDLH, OSHA Z-Tables for PEL. Always verify against the latest regulatory text before shipment-critical decisions.

HEALTH & FIRE HAZARD

ACUTE TOXICOLOGY

LD$_{50}$ ORAL (RAT)
6,500 mg/kg (rat) Adjudicated

LD$_{50}$ DERMAL (RABBIT)
> 5,000 mg/kg (8,359 mg/kg, Wako)

Adjudicated

Acute toxicology values from SDS Section 11 or NIOSH RTECS.

CATALOG EQUIVALENTS CROSS-REFERENCE VS MAJOR CHEMICAL SUPPLIERS

SIGMA-ALDRICH

SKU	GRADE	CONC.	MATCH	NOTES
A1888	ACS reagent	≥99.0%	Unverified candidate	Sigma n-amyl acetate.

Cross-references are informational. Confirm against the manufacturer's current specification before substitution. Competitor trademarks are property of their respective owners.

APPLICATIONS

Used as a solvent labdepotinc.com

Used as a flavoring agent (stated for the reagent-grade material) labdepotinc.com

Used as part of the preparation of penicillin (stated for the reagent-grade material) labdepotinc.com

Used as a test odorant in studies of olfactory function and of the psychosocial effects of odor ottokemi.com

Applications are drawn from published manufacturer and supplier documentation; each is sourced. Suitability for a specific use is the buyer's to confirm.

STORAGE & HANDLING

RECOMMENDED STORAGE

Keep tightly closed in a cool, well-ventilated flammables area away from ignition sources and oxidizers. Store locked up. Ground and bond containers.

Adjudicated

HANDLING PRECAUTIONS

Use chemical-resistant gloves and splash goggles. Bond and ground during transfer to prevent static accumulation. Eliminate ignition sources within vapor envelope.

Class-level guidance — not product-specific; the SDS controls.

INCOMPATIBILITIES

Strong oxidizing agents; strong acids and bases; nitrates.

Adjudicated

SHELF LIFE

Consult Technical Services for product-specific shelf life

For full hazard, PPE, and emergency response guidance, refer to the Safety Data Sheet (SDS) for this product. The SDS controls in all cases where guidance differs.

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

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UN1104, Amyl acetates, 3, PG III
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Sourced from 49 CFR 172.101. Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS	PLACARD	PACKING GROUP
77.5	Flammable Liquid	PG III

REVISION HISTORY

Last reviewed 2026-10-08 by Andre Taki, Chief Commercial Officer, DOT Hazmat–certified (49 CFR 172.704).

VERSION	DATE	CHANGE	TRIGGER
1.5	2026-10-08	Canonical data updated: 26 fields changed via the provenance/adjudication pipeline. • ghsClassification · canonical change (coa.data_provenance / adjudication) • hazard_h_codes · canonical change (coa.data_provenance / adjudication) • hazard_p_codes · canonical change (coa.data_provenance / adjudication) • synonyms · canonical change (coa.data_provenance / adjudication) • restrictions_on_use · canonical change (coa.data_provenance / adjudication) • odor · canonical change (coa.data_provenance / adjudication) • flashPoint · canonical change (coa.data_provenance / adjudication) • meltingPoint · canonical change (coa.data_provenance / adjudication) • vaporPressure · canonical change (coa.data_provenance / adjudication) • vaporDensity · canonical change (coa.data_provenance / adjudication) • solubility · canonical change (coa.data_provenance / adjudication) • autoIgnitionTemperature · canonical change (coa.data_provenance / adjudication) • explosiveLimits · canonical change (coa.data_provenance / adjudication) • oel_acgih_tlv · canonical change (coa.data_provenance / adjudication) • oel_niosh_rel · canonical change (coa.data_provenance / adjudication) • oel_idlh · canonical change (coa.data_provenance / adjudication) • incompatible_materials · canonical change (coa.data_provenance / adjudication) • conditions_to_avoid · canonical change (coa.data_provenance / adjudication) • hazardous_decomposition_products · canonical change (coa.data_provenance / adjudication) • storage_precautions · canonical change (coa.data_provenance / adjudication) • rcra_waste_codes · canonical change (coa.data_provenance / adjudication) • cercla_rq · canonical change (coa.data_provenance / adjudication) • dot_transport_note · canonical change (coa.data_provenance / adjudication) • recommended_use · canonical change (coa.data_provenance / adjudication) • specificGravity · canonical change (coa.data_provenance / adjudication) • boilingPoint · canonical change (coa.data_provenance / adjudication)	canonical_change
1.4	2026-10-05	Canonical data updated: 3 fields changed via the provenance/adjudication pipeline. • oel_niosh_rel · canonical change (coa.data_provenance / adjudication) • oel_idlh · canonical change (coa.data_provenance / adjudication) • oel_osha_pel · canonical change (coa.data_provenance / adjudication)	canonical_change

VERSION	DATE	CHANGE	TRIGGER
1.3	2026-09-30	Canonical data updated: 4 fields changed via the provenance/adjudication pipeline. • meltingPoint · canonical change (coa.data_provenance / adjudication) • boilingPoint · canonical change (coa.data_provenance / adjudication) • flashPoint · canonical change (coa.data_provenance / adjudication) • appearance · canonical change (coa.data_provenance / adjudication)	canonical_change
1.2	2026-07-22	Canonical data updated: 2 fields changed via the provenance/adjudication pipeline. • dotSubsidiaryHazardClass · canonical change (coa.data_provenance / adjudication) • dotProperShippingName · canonical change (coa.data_provenance / adjudication)	canonical_change
1.1	2026-07-17	Canonical data re-verified: 6 fields updated against independent vendor SDSs, CLP Annex VI, 49 CFR, and OSHA HazCom 2024 (GHS classification, hazard/precautionary codes, signal word, physical properties as applicable). • countryOfOrigin · canonical adjudication / reground (coa.data_provenance) • ghsClassification · canonical adjudication / reground (coa.data_provenance) • hazard_h_codes · canonical adjudication / reground (coa.data_provenance) • hazard_p_codes · canonical adjudication / reground (coa.data_provenance) • hsCode · canonical adjudication / reground (coa.data_provenance) • signalWord · canonical adjudication / reground (coa.data_provenance)	canonical_change
1.0	2026-05-20	Initial URL-first TDS published from canonical chemistry registry.	initial

This Technical Data Sheet is provided for technical reference. The Safety Data Sheet (SDS) controls in all cases where guidance differs. Values reflect Alliance Chemical canonical data at time of generation; subsequent revisions are recorded in the Revision History above.