

TECHNICAL DATA SHEET

Petroleum Ether ACS Reagent Grade

ACS Reagent

CAS NUMBER

8032-32-4

ALLIANCE CODE

petroleum-ether-acs-reagent-grade

GENERATED

2026-08-31

REVISION

1.3

REVIEWED

2026-07-17 · Andre Taki

IDENTITY & COMPOSITION

PRODUCT NAME

Petroleum Ether ACS Reagent Grade

ALLIANCE CODE

petroleum-ether-acs-reagent-grade

GRADE

ACS Reagent

CONCENTRATION

—

CAS NUMBER

8032-32-4 Adjudicated

FORMULA

C5-C6 Hydrocarbons Alliance SDS

MOLECULAR WEIGHT

70.0 g/mol Alliance TDS

PRODUCT TYPE

pure_substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Acidity	To pass test	Passes test	—	ACS Reagent Chemicals
Benzene (GC)	max 2 ppm	0.2 wt ppm	GC	Supplier specification
Copper Corrosion	To Pass	Passes test	—	Supplier specification

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Doctor Test	negative	Passes test	—	Supplier specification
Residue After Evaporation	max. 10 ppm	0.0003 %	—	ACS Reagent Chemicals
Substances darkened by sulfuric acid	Passes test	Passes test	—	Supplier specification
Sulfur	max 5 ppm	0.3 ppm	—	Supplier specification
Sulphur compounds (as S)	max. 0,005 %	0.0002 %	—	Supplier specification
Water	0.02% max.	0.005 %	Coulometry	Supplier specification
Identification (GC-FID)	Conforms to reference chromatogram	Passes test	GC-FID retention profile vs. reference standard	Interpreted

Specification values are guaranteed limits. Typical values are representative of production lots and are not guaranteed. Lot-specific certificates of analysis ship with every order.

AVAILABLE GRADES SAME CAS, ALTERNATE GRADES AND CONCENTRATIONS

GRADE	CONCENTRATION	TYPICAL ASSAY	SKU
THIS GRADE ACS Reagent	—	—	current
Technical Grade	—	—	petroleum-ether-technical-grade

Typical assay shown is the rolling-window mean from the sibling product's most recent lots. Grade selection drives downstream end-use — verify the sibling grade matches your specification before substitution.

PHYSICAL & CHEMICAL PROPERTIES

PROPERTY	VALUE	SOURCE
Appearance	Clear, colorless liquid	Published reference
Form	Liquid	Published reference
Color	max 10	ACS Reagent Chemicals
Specific Gravity (20 °C)	0.640 – 0.660	Interpreted
Boiling Point	35.0–60.0 C	ACS Reagent Chemicals
Flash Point	–18	Published reference
Solubility (water)	Soluble in organic solvents, insoluble in water	Published reference

MATERIALS OF CONSTRUCTION

MATERIAL	RATING	MAX T (°C)	NOTES	SOURCE
Buna-N (NBR) Elastomer	Good	80	Good for non-aromatic hydrocarbons; poor for aromatics.	Parker O-ring Chemical Compatibility
EPDM Elastomer	Not recommended	—	Swells in hydrocarbons; never use.	Parker O-ring Chemical Compatibility
Viton (FKM) Elastomer	Excellent	100	Standard for hydrocarbon service.	Parker O-ring Chemical Compatibility

MATERIAL	RATING	MAX T (°C)	NOTES	SOURCE
PTFE Fluoropolymer	Excellent	200	Universal.	Cole-Parmer Chemical Compatibility
316L Stainless Steel Metal	Excellent	100	Inert.	Cole-Parmer Chemical Compatibility
Carbon Steel Metal	Good	80	Acceptable for dry hydrocarbons.	Cole-Parmer Chemical Compatibility
HDPE Thermoplastic	Not recommen ded	—	Aromatic solvents swell and dissolve HDPE.	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

UN1268 **49 CFR 172.101**

PACKING GROUP

II **Adjudicated**

HAZARD CLASS

3 **Adjudicated**

PROPER SHIPPING NAME

Petroleum distillates, n.o.s. (Petroleum ether)

Adjudicated

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger **Adjudicated**

H-CODES (HAZARD STATEMENTS)

H225, H304, H336, H340, H350 **Adjudicated**

P-CODES (PRECAUTIONARY STATEMENTS)

P201, P202, P210, P233, P280, P308+P313,
P405

Adjudicated

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

— **no canonical**

ACGIH TLV

— **no canonical**

NIOSH REL

— **no canonical**

NIOSH IDLH

— **no canonical**

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

APPLICATION GUIDANCE

Petroleum Ether ACS Reagent Grade (ACS Reagent) is a nonpolar solvent used for hydrocarbon extraction, coatings, and degreasing.

- Coatings, paints, and adhesives
- Industrial degreasing
- Hydrocarbon extraction and recovery
- Rubber and polymer processing
- Cleaning of oil-based residues

Highly flammable and electrostatic-prone. Use grounded transfer equipment and inert gas blanketing where appropriate.

STORAGE & HANDLING

RECOMMENDED STORAGE

Cool, well-ventilated flammable-liquid storage. Tightly sealed containers. Segregate from oxidizers. Bond and ground bulk storage; consider inert gas blanketing for volatile solvents. Class-level guidance — not product-specific; the SDS controls.

INCOMPATIBILITIES

Strong oxidizers, halogens, nitric acid. Some grades react with rubber and certain plastics — verify gasket and hose compatibility. Class-level guidance — not product-specific; the SDS controls.

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.

HANDLING PRECAUTIONS

Eliminate ignition sources. Use chemical-resistant nitrile or PVA gloves. Bond and ground all transfer equipment. Vapors heavier than air — control ventilation accordingly. Class-level guidance — not product-specific; the SDS controls.

SHELF LIFE

Consult Technical Services for product-specific shelf life

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

UN1268, Petroleum distillates, n.o.s. (Petroleum ether), 3, PG II

Sourced from 49 CFR 172.101. Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS 70	PLACARD Flammable Liquid	PACKING GROUP PG II
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REVISION HISTORY

Last reviewed 2026-07-17 by Andre Taki, DOT Hazmat Specialist.

VERSION	DATE	CHANGE	TRIGGER
1.3	2026-08-05	Canonical data updated: 2 fields changed via the provenance/adjudication pipeline. - hazardClass · canonical change (coa.data_provenance / adjudication) - unNumber · canonical change (coa.data_provenance / adjudication)	canonical_change

VERSION	DATE	CHANGE	TRIGGER
1.2	2026-07-22	Canonical data updated: 2 fields changed via the provenance/adjudication pipeline. • dotSubsidiaryHazardClass · canonical change (coa.data_provenance / adjudication) • packingGroup · canonical change (coa.data_provenance / adjudication)	canonical_change
1.1	2026-07-17	Canonical data re-verified: 7 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). • casNumber · canonical adjudication / reground (coa.data_provenance) • 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.