Technical Data Sheet

# A-A-59601E Type III ACS Grade

ACS Grade

| Alliance Code | Revised | Revision |
|---|---|---|
| a-a-59601e-type-iii-acs-grade | 2026-10-08 | 1.6 |

| CAS number | | Molecular formula |
|---|---|---|
| 64742-47-8 | | Mixture |
| Grade: ACS Grade | Signal word: **Danger** | |

Hazards

Irritant / harmful | Health hazard | H304 H336

## IDENTITY & COMPOSITION

PRODUCT NAME
A-A-59601E Type III ACS Grade

ALLIANCE CODE
a-a-59601e-type-iii-acs-grade

GRADE
ACS Grade

CONCENTRATION
—

CAS NUMBER
64742-47-8 Adjudicated

FORMULA
Mixture Adjudicated

MOLECULAR WEIGHT
Varies Adjudicated

PRODUCT TYPE
Pure substance

## SPECIFICATIONS

| TEST | SPECIFICATION | TYPICAL | METHOD | SOURCE |
|---|---|---|---|---|
| Total chlorine content | 100 ppm, max. | — | — | Interpreted |
| Aniline point | 73 to 89 °C | — | ASTM D611 | Interpreted |

| TEST | SPECIFICATION | TYPICAL | METHOD | SOURCE |
|---|---|---|---|---|
| Aniline point (Type III) | 73 to 89 °C | — | ASTM D 611 | Interpreted |
| Initial boiling point | 220 °C min. | — | ASTM D86 | Interpreted |
| Color, Saybolt (Type III) | 30, min. | — | ASTM D 156 | Interpreted |
| Copper corrosion | 2a, max. | — | ASTM D 130 | Interpreted |
| Doctor test | Negative | — | ASTM D 235 | Interpreted |
| Dry point | 295 °C max. | — | ASTM D86 | Interpreted |
| Flash point | 93.3 °C (200 °F) min. | — | ASTM D56 | Interpreted |
| Kauri-butanol value | 27 to 45 | — | ASTM D1133 | Interpreted |
| Non-volatile residue | 10 mg/100 ml, max. | — | ASTM F 331 | Interpreted |
| Distillation, 90 % recovered | 275 °C max. | — | ASTM D86 | Interpreted |
| Sulfur, total | 30 ppm, max. | — | ASTM D5453 (UV fluorescence) | 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 |

| GRADE | CONCENTRATION | TYPICAL ASSAY | SKU |
|---|---|---|---|
| Technical | — | — | a-a-59601e-type-iii |

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 | Adjudicated |
| Odor | Hydrocarbon-like | Adjudicated |
| pH | Not applicable (non-aqueous) | Published reference |
| Specific Gravity | 0.81 at 15.6 °C (water = 1) | Adjudicated |
| Density | ~0.79 g/mL at 15 °C | Published reference |
| Boiling Point | 242–276 °C (468–529 °F) distillation range | Adjudicated |
| Melting Point | -22 °C (-8 °F), freezing point | Adjudicated |
| Flash Point | 101 °C (213.8 °F), closed cup (ASTM D56) | Adjudicated |
| Vapor Pressure | < 0.1 mmHg at 20 °C | Adjudicated |
| Solubility (water) | Negligible in water | Adjudicated |
| Viscosity | 2.5–3.8 $mm^2/s$ at 20–40 °C | Adjudicated |

## REGULATORY & TRANSPORT

### DOT / 49 CFR

UN NUMBER

Not regulated **Adjudicated**

HAZARD CLASS

Not regulated **Adjudicated**

PACKING GROUP

Not regulated **Adjudicated**

PROPER SHIPPING NAME

Not regulated **Adjudicated**

### GHS / OSHA HCS 2024

SIGNAL WORD

Danger **Adjudicated**

H-CODES (HAZARD STATEMENTS)

`H304, H336` **Adjudicated**

P-CODES (PRECAUTIONARY STATEMENTS)

`P260, P264, P271, P280, P301+P310, P304+P340, P312, P331, P403+P233, P405, P501`

**Adjudicated**

### OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

500 ppm TWA **OSHA 29 CFR 1910.1000**

ACGIH TLV

— **no canonical**

NIOSH REL

350 mg/m$^3$ TWA / 1800 mg/m$^3$ Ceiling (15 min)

NIOSH IDLH

20000 mg/m$^3$ **NIOSH Pocket Guide**

**NIOSH Pocket Guide**

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.

## APPLICATIONS

Hydrocarbon solvent used in the dry cleaning and coatings industries and, in military service, for degreasing and cleaning painted or unpainted metal parts (sourced from revision D of the A-A-59601 CID).

**everyspec.com**

Type III (low odor, very high flash point) is intended for cleaning where confined atmospheric conditions require a cleaner conforming to federal directives for reducing hazardous materials.

**everyspec.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 closed in a cool, well-ventilated place away from oxidizers and heat. Store locked up.

Adjudicated

HANDLING PRECAUTIONS

Use standard chemical PPE — splash goggles, gloves, lab coat. Refer to SDS for hazard-specific PPE requirements.

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

INCOMPATIBILITIES

Strong oxidizing agents. 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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Not regulated for transport.
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Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS

55

## REVISION HISTORY

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

| VERSION | DATE | CHANGE | TRIGGER |
|---|---|---|---|
| 1.6 | 2026-10-08 | Canonical data updated: 22 fields changed via the provenance/adjudication pipeline.<br>• ghsClassification · canonical change (coa.data_provenance / adjudication)<br>• hazard_h_codes · canonical change (coa.data_provenance / adjudication)<br>• hazard_p_codes · canonical change (coa.data_provenance / adjudication)<br>• synonyms · canonical change (coa.data_provenance / adjudication)<br>• recommended_use · canonical change (coa.data_provenance / adjudication)<br>• restrictions_on_use · canonical change (coa.data_provenance / adjudication)<br>• odor · canonical change (coa.data_provenance / adjudication)<br>• boilingPoint · canonical change (coa.data_provenance / adjudication)<br>• meltingPoint · canonical change (coa.data_provenance / adjudication)<br>• vaporPressure · canonical change (coa.data_provenance / adjudication)<br>• specificGravity · canonical change (coa.data_provenance / adjudication)<br>• solubility · canonical change (coa.data_provenance / adjudication)<br>• viscosity · canonical change (coa.data_provenance / adjudication)<br>• autoIgnitionTemperature · canonical change (coa.data_provenance / adjudication)<br>• explosiveLimits · canonical change (coa.data_provenance / adjudication)<br>• incompatible_materials · canonical change (coa.data_provenance / adjudication)<br>• conditions_to_avoid · canonical change (coa.data_provenance / adjudication)<br>• hazardous_decomposition_products · canonical change (coa.data_provenance / adjudication)<br>• storage_precautions · canonical change (coa.data_provenance / adjudication)<br>• rcra_waste_codes · canonical change (coa.data_provenance / adjudication)<br>• cercla_rq · canonical change (coa.data_provenance / adjudication)<br>• dot_transport_note · canonical change (coa.data_provenance / adjudication) | canonical_change |
| 1.5 | 2026-10-05 | Canonical data updated: 3 fields changed via the provenance/adjudication pipeline.<br>• oel_niosh_rel · canonical change (coa.data_provenance / adjudication)<br>• oel_idlh · canonical change (coa.data_provenance / adjudication)<br>• oel_osha_pel · canonical change (coa.data_provenance / adjudication) | canonical_change |
| 1.4 | 2026-09-30 | Canonical data updated: 2 fields changed via the provenance/adjudication pipeline.<br>• appearance · canonical change (coa.data_provenance / adjudication)<br>• boilingPoint · canonical change (coa.data_provenance / adjudication) | canonical_change |
| 1.3 | 2026-09-10 | Canonical data updated: 1 field changed via the provenance/adjudication pipeline.<br>• flashPoint · canonical change (coa.data_provenance / adjudication) | canonical_change |

| VERSION | DATE | CHANGE | TRIGGER |
|---|---|---|---|
| 1.2 | 2026-07-22 | Canonical data updated: 4 fields changed via the provenance/adjudication pipeline.<br>• unNumber · canonical change (coa.data_provenance / adjudication)<br>• hazardClass · canonical change (coa.data_provenance / adjudication)<br>• packingGroup · canonical change (coa.data_provenance / adjudication)<br>• dotProperShippingName · canonical change (coa.data_provenance / adjudication) | canonical_change |
| 1.1 | 2026-07-17 | Canonical data re-verified: 14 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).<br>• bulkThresholdGallons · canonical adjudication / reground (coa.data_provenance)<br>• countryOfOrigin · canonical adjudication / reground (coa.data_provenance)<br>• dotProperShippingName · canonical adjudication / reground (coa.data_provenance)<br>• dotSubsidiaryHazardClass · canonical adjudication / reground (coa.data_provenance)<br>• ghsClassification · canonical adjudication / reground (coa.data_provenance)<br>• hazardClass · canonical adjudication / reground (coa.data_provenance)<br>• hazard_h_codes · canonical adjudication / reground (coa.data_provenance)<br>• hazard_p_codes · canonical adjudication / reground (coa.data_provenance)<br>• hsCode · canonical adjudication / reground (coa.data_provenance)<br>• packingGroup · canonical adjudication / reground (coa.data_provenance)<br>• physicalProperties · canonical adjudication / reground (coa.data_provenance)<br>• regulationRule · canonical adjudication / reground (coa.data_provenance)<br>• signalWord · canonical adjudication / reground (coa.data_provenance)<br>• unNumber · 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.