

TECHNICAL DATA SHEET

A-A-59601E Type III ACS Grade

ACS Grade

CAS NUMBER	ALLIANCE CODE	GENERATED
64742-47-8	a-a-59601e-type-iii-acs-grade	2026-09-01
REVISION	REVIEWED	
1.2	2026-07-17 · Andre Taki	

IDENTITY & COMPOSITION

PRODUCT NAME	ALLIANCE CODE
A-A-59601E Type III ACS Grade	a-a-59601e-type-iii-acs-grade
GRADE	CONCENTRATION
ACS Grade	—
CAS NUMBER	FORMULA
64742-47-8 Adjudicated	Mixture Adjudicated
MOLECULAR WEIGHT	PRODUCT TYPE
Varies Adjudicated	pure_substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Total chlorine content	100 ppm, max.	1 ppm	—	Federal specification
Aniline point	73 to 89 °C	81 °C	ASTM D611	Supplier specification
Aniline point (Type III)	73 to 89 °C	81 °C	ASTM D 611	Federal specification

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Copper corrosion	2a, max.	1a	ASTM D 130	Federal specification
Doctor test	Negative	Passes test	ASTM D 235	Federal specification
Dry point	295 °C max.	266 °C	ASTM D86	Supplier specification
Kauri-butanol value	27 to 45	36	ASTM D1133	Supplier specification
Non-volatile residue	10 mg/100 ml, max.	1 mg/100 ml	ASTM F 331	Federal specification
Sulfur, total	30 ppm, max.	0.5 ppm	ASTM D5453 (UV fluorescence)	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 Grade	—	—	current
Technical	—	—	a-a-59601e-type-iii

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
Color	30, min.	Federal specification
Odor	Low and non-residual	Federal specification
pH	Not applicable (non-aqueous)	Published reference
Specific Gravity (20 °C)	0.790 - 0.820	Interpreted
Density	~0.79 g/mL at 15 °C	Published reference
Boiling Point	220 °C min.	Supplier specification
Melting Point	Not applicable	Published reference
Flash Point	93.3 °C (200 °F) min.	Supplier specification
Vapor Pressure	<1 mmHg at 20 °C	Published reference
Solubility (water)	Insoluble in water	Published reference

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

Not regulated **Adjudicated**

PACKING GROUP

Not regulated **Adjudicated**

HAZARD CLASS

Not regulated **Adjudicated**

PROPER SHIPPING NAME

Not regulated **Adjudicated**

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger **Adjudicated**

H-CODES (HAZARD STATEMENTS)

H227, H304, H336 **Adjudicated**

P-CODES (PRECAUTIONARY STATEMENTS)

P210, P260, P264, P271, P280, P301+P310,
P304+P340, P312, P331, P403+P233, P405,
P501

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.

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).

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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.

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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

Cool, dry, well-ventilated area in original sealed containers. Refer to product SDS for material-specific guidance.

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

INCOMPATIBILITIES

Consult the SDS for material-specific incompatibilities.

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

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.

SHELF LIFE

Consult Technical Services for product-specific shelf life

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

Not regulated for transport.

Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS
55

REVISION HISTORY

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

VERSION	DATE	CHANGE	TRIGGER
1.2	2026-07-22	Canonical data updated: 4 fields changed via the provenance/adjudication pipeline. - unNumber · canonical change (coa.data_provenance / adjudication) - hazardClass · canonical change (coa.data_provenance / adjudication) - packingGroup · canonical change (coa.data_provenance / adjudication) - dotProperShippingName · canonical change (coa.data_provenance / adjudication)	canonical_change

VERSION	DATE	CHANGE	TRIGGER
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). • bulkThresholdGallons · canonical adjudication / reground (coa.data_provenance) • countryOfOrigin · canonical adjudication / reground (coa.data_provenance) • dotProperShippingName · canonical adjudication / reground (coa.data_provenance) • dotSubsidiaryHazardClass · canonical adjudication / reground (coa.data_provenance) • ghsClassification · canonical adjudication / reground (coa.data_provenance) • hazardClass · 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) • packingGroup · canonical adjudication / reground (coa.data_provenance) • physicalProperties · canonical adjudication / reground (coa.data_provenance) • regulationRule · canonical adjudication / reground (coa.data_provenance) • signalWord · canonical adjudication / reground (coa.data_provenance) • 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.