

Full Global Certification Qualification Guide for Sulfolane (CAS 126-33-0)

Target Users

Large Petrochemical Traders, Refinery Group Procurement, High-Purity Electronic Material Export Enterprises, Overseas End-User Factory Audits; Covers mandatory global chemical registration qualifications, management system certifications, third-party laboratory testing accreditations, industry-specific product certifications, full export delivery compliance documents, supplier qualification verification checklists, all regulations effective June 2026.

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I. Fundamental Pre-Qualifications: Global Existing Chemical Inventory Listing Proofs (Minimum Access Threshold) from HiSiaddi

Sulfolane is listed on all major national chemical inventories worldwide and is not classified as a new chemical substance, eliminating pre-import new substance notification obligations. Suppliers must provide inventory listing screenshots or original manufacturer PRO regulatory overview documents as foundational qualification evidence.

Region	Inventory Name	Qualification Document Name	Core Function
EU	EINECS/EC Inventory	EC Number 204-783-1 Listing Certificate	Precondition for REACH Registration
USA	TSCA Inventory	TSCA Inventory Listing Compliance Statement	Mandatory import filing material for US customs
Canada	DSL Domestic Substances List	DSL Listing Compliance Letter	Mandatory for Canadian customs clearance
Japan	ENCS Existing Chemicals Inventory	ENCS Substance Registration Number	Basis for Annual METI Import Declarations
South Korea	KECL Existing Chemicals Inventory	KECL Listing Certificate	Foundation for K-REACH Registration
China	IECSC Inventory of Existing Chemical Substances in China	China Existing Substance Listing Certificate	Precondition for Domestic Production & Export
Australia / New Zealand	AIIC, NZIoC	AIIC Listing Documentation	Australian Import Notification Materials

Global Consolidated Master Document: Product Regulatory Overview (PRO) Compliance Summary Report (Standardized document from leading manufacturers including Chevron Phillips, Wanhua and Zhongdan, covering all national inventory listing certifications)

II. Regional Mandatory Global Chemical Registration Qualifications (Enforced Customs Clearance Prerequisites)

2.1 EU REACH Registration Qualifications (Stringest Global Regime, Mandatory for EU Exports)

1. Core Document Package
 - Full REACH Registration Certificate (Including registration number and tonnage bands: 1–10t / 10–100t / 100–1000t / >1000t)
 - EU Only Representative (OR) Power of Attorney (Mandatory for non-EU manufacturers)
 - CSR Chemical Safety Assessment Report (Covers all exposure scenarios: Aromatic Extraction, PEEK Polymerization, Electronic Cleaning, Natural Gas Desulfurization)
 - DoC Declaration of Conformity
1. Key Advantage: Sulfolane is excluded from the SVHC Candidate List and REACH Annex XVII Restriction List with no authorization permit requirements. Domestic leading manufacturers (Wanhua, Zhongdan, Bluestar) hold complete registration dossiers; buyers may share registration numbers without independent registration.
2. Supplementary CLP Compliance Qualifications: CLP Label Compliance Sample, GHS Classification Identification Report (Mandatory basis for EU SDS and packaging labelling)

2.2 US TSCA Compliance Qualifications (Mandatory for North American Imports)

1. TSCA Positive Compliance Certification: Supplied with every shipment, stating CAS number, purity and annual import tonnage; mandatory filing for US Customs ACE system
2. Supplementary California Qualifications:
 - Prop 65 Non-Toxicity Certificate: Sulfolane not listed on California toxic substance inventory, eliminating warning label obligations
 - CONEG Packaging Heavy Metal Test Report (Compliance for lead, cadmium, mercury and antimony limits on steel drums / IBC totes)

2.3 Canadian CEPA/DSL Supplementary Qualifications

DSL Listing Compliance Letter, Hazardous Waste Disposal Compliance Statement, WGK Class 1 Aquatic Hazard Certificate (Mandatory audit document for European and Middle Eastern refinery clients)

2.4 South Korea K-REACH (ARECS) Registration Qualifications

1. K-REACH Tonnage Band Registration Certificate (Registration deadlines tiered through 2030)
2. Local Korean Only Representative (KR-OR) Power of Attorney
3. Bilingual Korean SDS Filing Receipt, Annual Import Declaration Template

2.5 Japan METI ENCS Supplementary Qualifications

ENCS Substance Registration Receipt, Japanese Industrial Safety & Health Act GHS SDS Filing Documentation, Internal Metal Impurity Control Test Reports (Exclusive for Electronic Grade)

2.6 ASEAN Universal Compliance Qualifications (Singapore / Malaysia / Vietnam / Indonesia)

National chemical inventory listing notification receipts, local-language GHS SDS filing certificates; EU REACH registration documentation accepted by most ASEAN customs authorities to reduce duplicate certification costs

III. International Production Management System Certifications (Mandatory Audit Threshold for Multinational Petrochemical & Semiconductor Buyers)

All certifications issued by CNCA-accredited bodies, a mandatory entry requirement for cross-border petrochemical groups and semiconductor enterprise procurement:

1. ISO 9001 Quality Management System
Covers full rectification, purification, filling and quality inspection workflows; certificate plus annual surveillance audit reports; core qualification for batch traceability systems on COA documents
2. ISO 14001 Environmental Management System
Documentation for sulfur and butadiene waste gas/wastewater treatment, solvent recovery and hazardous waste disposal; mandatory audit requirement for European and Middle Eastern refinery clients
3. ISO 45001 Occupational Health & Safety Management System
Controls for workshop ventilation, static electricity prevention and personal protective equipment; supporting documentation for EU SEVESO on-site safety audits
4. ISO/IEC 17025 Laboratory Accreditation
Internal quality inspection laboratory qualification; GC/ICP-MS test reports issued carry international legal validity and may substitute third-party testing (Standard equipment for leading high-purity manufacturers)

5. Value-Added Supplementary Systems (Bonus Qualification for High-End Electronics Clients)

- ISO 13485 (Pharmaceutical Intermediate Grade)
- ESD Anti-Static System Certification (Dust-Free Electronic Grade Filling Workshops)

IV. Authoritative Third-Party Laboratory Accreditations (Mandatory for Legally Valid Test Reports)

All COA, impurity analysis and physicochemical test report issuers must hold the below accreditations; customs and overseas clients only recognize dual-accredited reports:

1. CMA Inspection & Testing Institution Qualification Accreditation: Domestic statutory testing certification, mandatory recognition for customs declaration and domestic regulatory oversight
2. CNAS China National Accreditation Service for Conformity Assessment: Global laboratory mutual recognition, universally accepted by EU, US, Japanese and South Korean customs authorities
3. International Mutual Recognition Accreditations: UKAS (UK), IAS (USA), GLP Good Laboratory Practice (Exclusive for Toxicology & Ecological Assessment Reports)

Authoritative Specialized Sulfolane Testing Laboratories

CTI Huace, Bureau Veritas (BV), SGS, Zhejiang Chemical Testing, Qingxi Research Institute; Capable of issuing SEMI Electronic Grade and ASTM Industrial Grade standardized test reports

V. Grade-Specific International Product Certifications (Segmented by Downstream Industry for Differentiated Procurement Verification)

5.1 General Industrial Grade (99.5%, Refining / Natural Gas Desulfurization)

1. National Standard Compliance Certificate: Full test report to GB/T 34672-2017 Industrial Sulfolane
2. ASTM D5399 International Industrial Solvent Standard Test Certificate (Specified standard for European and US refineries)
3. WGK 1 German Aquatic Hazard Class Environmental Certificate (Mandatory for imports to Germany and the Netherlands)
4. Hazardous Goods Classification Identification Report: Confirmation of non-dangerous goods classification with no UN number, simplifying sea/road transport declarations

5.2 High-Purity Premium Grade (99.9%, Polyimides, Fine Chemicals)

1. RoHS 2.0 (2015/863) Hazardous Substance Restriction Test Report: Compliant lead, cadmium, mercury, hexavalent chromium and phthalate limits
2. Halogen-Free Test Report (Cl/Br halogen <50 ppm, mandatory for high-end polymer clients)
3. Specialized Third-Party Low-Color & Low-Acid Value Certification

5.3 Electronic / Semiconductor Ultra-High-Purity Grade (99.99%, Lithium Batteries, Wafer Cleaning, Highest Standard Qualifications)

Mandatory Core Specialized Certifications

1. SEMI International Semiconductor Material Standard Certification
Compliant with SEMI C7/C8 standards, graded EL- I ~EL-IV with Na/K/Ca/Fe/Cu metal ions ≤ 1 ppb and particle size controls; exclusive entry standard for overseas wafer fabrication and top lithium battery manufacturers
2. ICP-MS Trace Metal Ion Full-Spectrum Test Report (14 heavy metals controlled at ppb limits)
3. Dust-Free Workshop Filling Qualification, 0.2 μ m Particle Size Test Certificate
4. Low-Ion Conductivity Certification, Trace Mercaptan/Organic Impurity Screening Report
5. WEEE Waste Electronic Chemical Compliance Certificate, PFAS-Free Perfluorinated Compound Test Report

5.4 Pharmaceutical Intermediate Grade (Niche High-End Segment)

1. Internal Pharmacopoeia-Grade Purity Test Report
2. GLP Toxicological Safety Assessment Report, Non-Carcinogenic Impurity Screening Certificate

VI. Environmental, Transportation & Packaging Supporting Compliance Qualifications

6.1 Environmental Qualifications

1. Pollutant Discharge Permit (Mandatory for manufacturers, verified during overseas factory audits)
2. Biodegradable Ecotoxicology Report, Low Aquatic Risk Environmental Certificate
3. Cooperative Hazardous Waste Disposal Vendor Qualification
(Compliance documentation for waste liquid and empty drum recovery)

6.2 International Transportation Compliance Qualifications

1. IMDG Sea Non-Hazardous Goods Identification Report, ADR Road Transport Classification Report, IATA Air Transport Safety Identification
2. Packaging Performance Inspection Certificate (200L Galvanized Drums, IBC Totes, Stainless Steel Tank Containers)
3. Anti-Static Packaging Test Report (Anti-static liners and grounding devices for drums/IBC totes)

6.3 Packaging Specialized Qualifications

1. UN Packaging Exemption Certificate (Sulfolane non-hazardous classification eliminates UN dangerous goods packaging certification requirements)
2. Directive 94/62 Packaging Waste Compliance Report (Mandatory for EU exports)
3. Reusable IBC Tote Cleaning & Recycling Qualification Documentation (Cost reduction verification for long-term bulk procurement)

VII. Full Export Trade Delivery Document Qualifications (Mandatory for Customs Clearance & Customer Acceptance)

Universal Base Documents (All Markets)

1. English/Chinese TDS Technical Data Sheet (Original Manufacturer Stamped)
2. Batch COA Certificate of Analysis (Issued by CMA/CNAS-accredited laboratories, unique per batch)
3. GHS 16-Section SDS (Local language matching destination market: English/German/Korean/Japanese/Chinese)
4. Original Manufacturer Compliance Letter (Stamped, summarizing all registration qualifications)
5. Certificate of Origin CO/FORM A/FORM E (Tariff reduction qualification)

Supplementary EU Delivery Documents

REACH Registration Number Copy, OR Power of Attorney, DoC Declaration of Conformity, CLP Label Sample, PRO Regulatory Overview Report

Supplementary North American Delivery Documents

TSCA Compliance Declaration, CONEG Packaging Test Report, WGK Aquatic Hazard Certificate

Special Supplementary Documents for Electronic Ultra-High-Purity Grade SEMI Grade Test Report, ICP-MS Metal Ion Report, RoHS Halogen-Free Report, Dust-Free Production Qualification Certificate

VIII. Supplier Qualification Tiered Verification Standards (Group Procurement Risk Control Tiering)

Tier S (Global Premium Original Manufacturers: Chevron Phillips, BASF, Eastman)

Complete global registration qualification coverage, in-house GLP laboratories, full SEMI Electronic Grade certification suite; Disadvantages: Extremely high procurement costs, large minimum order quantities, extended lead times

Tier A (Domestic Leading Export Manufacturers: Wanhua, Zhongdan, Bluestar, Juhua)

Full REACH registration, ISO Triple System Certification, in-house CNAS laboratories, dual Industrial/Electronic Grade qualification coverage; Shared registration access, spot inventory availability, optimal overall cost; Primary supply source for large-scale trading companies

Tier B (Small & Medium Domestic Manufacturers)

Only basic inventory listing certification; no independent full REACH registration; no SEMI Electronic Grade certification; Only suitable for low-end bulk refining orders to Southeast Asia/Middle East; Not recommended for EU/US/Semiconductor procurement

Tier C (Uncertified Small Workshop Manufacturers)

No management system certifications, no third-party test reports, no chemical registration documentation; Strictly prohibited for cooperation; Risk of customs detention, customer rejection and substantial financial penalties

IX. Minimum Mandatory Entry Qualification Checklists by Export Market (Reference for Annual Procurement Budget Formulation)

1. EU Market Minimum Mandatory Qualifications

REACH Registration Certificate + OR Power of Attorney, CLP Classification Report, English REACH SDS, DoC, ISO9001/14001, CMA/CNAS COA, PRO Regulatory Overview Report, WGK Aquatic Hazard Certificate

2. US / Canada Minimum Mandatory Qualifications

TSCA Compliance Declaration, DSL Listing Certificate, English GHS SDS, CONEG Packaging Test Report, ASTM Industrial Standard COA

3. South Korea Market Minimum Mandatory Qualifications

K-REACH Registration Certificate, KR-OR Power of Attorney, Bilingual Korean SDS, KECL Listing Certificate

4. Southeast Asia (Malaysia / Indonesia / Vietnam) Minimum Mandatory Qualifications

Local-Language SDS Filing Receipt, Original Manufacturer PRO Inventory Listing Certificate, Non-Hazardous Goods Transport Identification Report

5. Global Unified Minimum Mandatory Qualifications for Semiconductor / Lithium Battery Clients

SEMI High-Purity Certification, ICP-MS Metal Ion Test Report, RoHS Halogen-Free Certification, ISO17025 Laboratory Accreditation, Full REACH Registration Documentation

X. Brief Qualification Procurement Budget Guidance (For Trader Cost Calculation)

1. Domestic Tier A Manufacturer Allocated Compliance Costs: Shared REACH registration; RMB 300–550 per ton annually (RMB 300 for Industrial Grade, RMB 550 for Electronic Ultra-High-Purity Grade)
2. Global Tier S Original Manufacturers: Compliance costs integrated within FOB unit pricing with no separate allocation; overall procurement unit price 3–4x domestic alternatives
3. Additional Specialized Testing Annual Budget: SEMI Electronic Grade third-party annual testing RMB 12,000–18,000 per factory; Annual RoHS/Halogen-Free Testing RMB 3,000–6,000
4. Compliance Risk Contingency Reserve: 1.5%–2% of total annual procurement expenditure to cover emergency customs testing, compliance rectification and return shipment indemnification costs