



TECHNICAL DATA SHEET

ALK-ABS CLEANER (VEHICLES & INDUSTRIAL)

Petroleum Distillate Edging, Pre-Cleaning & Industrial Degreasing Solvent Blend

ALK-ABS CLEANER

Multi-Purpose Automotive Panel Pre-Cleaning, Edging & Industrial Machinery Degreasing Solvent

AUTOMOTIVE REFINISH & HEAVY INDUSTRIAL SOLVENT

Product Overview: ALK-ABS CLEANER is a refined, controlled-evaporation solvent blend based on high-purity petroleum distillates and de-aromatized aliphatic hydrocarbons. Engineered by ALKEMIST™ for dual-sector performance across **vehicle body shops / OEM automotive lines** and **heavy industrial manufacturing / maintenance facilities**, it rapidly dissolves and lifts non-polar contaminants, industrial lubricants, and adhesives without swelling, crazing, or dulling sensitive engineering plastics (including ABS, polycarbonate, HDPE, and polypropylene), painted surfaces, or precision metal tooling.

Key Technical Advantages: Controlled moderate evaporation rate allows thorough wipe-off and parts flushing before dissolved oils flash dry back onto the substrate; eliminates paint and coating defects (fisheyes, cratering, delamination); leaves zero oily film or non-volatile residue; non-corrosive to all industrial metals (Copper Strip Class 1a); and completely safe on ABS plastic housings, bumpers, and industrial enclosures.

Primary Vehicle & Industrial Applications:

- **Automotive & Fleet Sector:** Pre-paint panel preparation, vehicle body edging, removal of silicone polishes, road tar, bitumen, transit wax, underbody grease, and emblem/decals adhesive residues.
- **Industrial & Manufacturing Sector:** Precision metal parts degreasing prior to powder coating/galvanizing, ABS/polymer injection mold release cleaning, CNC machine tool & bearing flushing, conveyor roller maintenance, and heavy equipment overhaul.

Flammability & Plant Safety: Flammable liquid and vapour (Flash Point ~42°C). Keep away from open flames, welding arcs, grinding sparks, and hot surfaces. Always bond and ground bulk drums and dip tanks during dispensing and operate in well-ventilated spray booths, parts washers, or industrial bays.

Document Control

TDS NO.

ALK-ABS-TDS-001

CORRESPONDING SDS

ALK-ABS-CLN-001

VERSION

2.0 (Vehicles & Industrial)

ISSUE DATE

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PRODUCT CODE

ALK-ABS-CLN



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CHEMICAL BASIS

Refined Petroleum Distillates

TARGET SECTORS

Automotive & Industrial MRO

Supplier / Manufacturer

Comapany:

ALKEMIST | WATER AND CHEMICALS SOLUTIONS (SMC-PRIVATE) LIMITED

Address:

Office No. 32, Usman Plaza, Alipur Road, Hafizabad City, Pakistan

Contact/Emergency:

0315 237 2222

Email

admin@waterchemicalssolution.com

1. Typical Physical & Chemical Specifications

Verified Laboratory QC Parameters: Every batch of ALK-ABS CLEANER is analytically verified against international ASTM hydrocarbon solvent standards to ensure safe engineering plastic compatibility, high dielectric stability, and zero non-volatile residue.

TECHNICAL PROPERTY	TYPICAL VALUE / SPECIFICATION	TEST METHOD / STANDARD
APPEARANCE & CLARITY	Clear & Bright, Water-White Liquid	Visual QC Inspection @ 25°C (ASTM D4176)
ODOUR PROFILE	Mild, low-aromatic petroleum solvent odour	Organoleptic Evaluation
COLOR (SAYBOLT / PT-CO)	+30 min (Saybolt) / Max. 10 (Pt-Co)	ASTM D156 / ASTM D1209
DENSITY @ 20°C	0.770 - 0.810 g/cm³	ASTM D4052 Digital Density Meter
FLASH POINT (CLOSED CUP)	Approx. 42°C (108°F)	ASTM D56 / ASTM D93 Closed Cup
INITIAL BOILING POINT (IBP)	Approx. 150°C (302°F)	ASTM D86 / ASTM D1078 Distillation
DRY POINT (FINAL BOILING)	Max. 205°C (401°F)	ASTM D86 / ASTM D1078 Distillation
EVAPORATION RATE	0.15 - 0.25 (n-Butyl Acetate = 1.0)	ASTM D3539 Gravimetric Evap. Test



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KAURI-BUTANOL (KB) VALUE	32 - 38 (Controlled Aliphatic Solvency)	ASTM D1133 Solvency Power Test
ANILINE POINT	62°C - 68°C (144°F - 154°F)	ASTM D611 Hydrocarbon Characterization
AROMATIC CONTENT	< 2.0 % wt. (De-aromatized / Plastic Safe)	ASTM D1319 / Gas Chromatography
DIELECTRIC BREAKDOWN VOLTAGE	> 25 kV (Non-conductive when dry)	ASTM D877 Electrical Insulating Test
NON-VOLATILE RESIDUE	< 0.002 % w/w (100% Clean Dry)	ASTM D1353 Gravimetric Residue
COPPER STRIP CORROSION	Class 1a (Non-corrosive, 3 hrs @ 50°C)	ASTM D130 Metal Compatibility
SOLUBILITY IN WATER	Insoluble / Immiscible (< 0.05%)	Aqueous Phase Separation @ 20°C

Why Controlled Solvency (KB 32–38) Matters for Vehicles & Industry: Aggressive ketonic or high-aromatic thinners attack Acrylonitrile Butadiene Styrene (ABS) bumpers, industrial appliance housings, CNC machine polycarbonate viewing windows, and electrical insulation varnishes. ALK-ABS CLEANER is formulated with a low aromatic profile (< 2.0%) and balanced Kauri-Butanol solvency, giving it aggressive cutting power against heavy industrial greases, stamping oils, silicone, wax, and road tar while remaining completely safe on engineering plastics and cured industrial coatings.

2. Multi-Sector Applications & Substrate Compatibility Matrix

2.1 TARGET CONTAMINANTS ACROSS AUTOMOTIVE & INDUSTRIAL SECTORS

Vehicle Refinish & Edging

Dissolves invisible silicone overspray, mold release agents on new ABS bumpers, road tar, asphalt pitch, tree sap, protective transit wax, and emblem tape adhesives prior to painting or detailing.

Industrial Machinery & Metal

Flushes away heavy petroleum greases, CNC cutting/tapping oils, hydraulic fluid spills, rust-preventive cosmoline waxes, and stamping lubes from steel fabrications, bearings, gears, and chains.

Plastic Molding & Assembly



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Safely cleans silicone/wax mold-release build-up from injection molds, prepares extruded ABS/PVC industrial enclosures for silk-screening or labeling, and removes conveyor adhesive build-up.

2.2 VEHICLE & INDUSTRIAL SUBSTRATE COMPATIBILITY GUIDE

SUBSTRATE / ENGINEERING MATERIAL	COMPATIBILITY RATING	TECHNICAL OBSERVATION & OPERATIONAL GUIDANCE
ABS PLASTIC, POLYPROPYLENE (PP/TPO), HDPE & NYLON	EXCELLENT (Safe)	Does not cause stress cracking, swelling, or surface tackiness on automotive ABS/PP bumpers, industrial ABS control housings, or polymer machine guards.
CARBON STEEL, STAINLESS STEEL, CAST IRON & TOOLING	EXCELLENT (Safe)	100% anhydrous (water-free) formulation prevents flash rusting on bare sanded body panels, precision CNC machined parts, and injection mold cavities.
ALUMINUM, COPPER, BRASS & PRECISION ALLOYS	EXCELLENT (Safe)	Verified ASTM D130 Class 1a non-corrosive. Safe for ultrasonic or dip degreasing of yellow metals, heat exchangers, and aluminum castings.
OEM CURED CLEAR COATS, 2K EPOXY & POWDER COATINGS	EXCELLENT (Safe)	Safe for repeated wipe-down of fully cured automotive finishes and baked industrial epoxy/polyurethane machinery enamels without gloss loss.
POLYCARBONATE (PC) & ACRYLIC SIGHT GLASSES / LENSES	GOOD (Wipe Off)	Safe for brief contact to remove grease, tar, or tape residue on headlamp lenses and machine safety shields. Wipe dry promptly; do not immersion-soak.
VITON, NITRILE (BUNA-N) & PTFE INDUSTRIAL SEALS	EXCELLENT (Safe)	Fully compatible with oil-resistant industrial seals, O-rings, and hydraulic hoses during machinery maintenance.
EPDM WEATHERSTRIPPING & NATURAL RUBBER GASKETS	MODERATE (Brief Contact)	Safe for incidental edging wipe-downs. Avoid prolonged immersion of natural rubber or EPDM gaskets, which may experience temporary hydrocarbon swelling.
UNCURED 1K LACQUER / FRESH AIR-DRY SHOP PRIMER	TEST FIRST (Caution)	Fresh, non-catalyzed 1K thermoplastic coatings may soften if rubbed aggressively. Spot-test on an inconspicuous edge before full surface wiping.

3. Standard Operating Procedures: Vehicle & Industrial Workflows

METHOD A: VEHICLE BODY EDGING & PRE-PAINT "TWO-CLOTH" WIPE-DOWN



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To prevent smearing dissolved silicones, road tar, or mold-release agents across vehicle panels or ABS plastic components prior to painting or bonding, technicians must follow the **Two-Cloth Wipe-On / Wipe-Off Method**:

1

Stage 1: Initial Water-Wash & Compressed Air Blow-Dry

Wash the vehicle panel or industrial housing with detergent and water to remove loose mud, shop dust, and water-soluble salts. Blow dry crevices, door jambs, and edges using oil-free compressed air.

2

Stage 2: Solvent Application (Cloth #1 - Wetting & Dissolving)

Soak a clean, lint-free wipe or apply **ALK-ABS CLEANER** via a Viton-sealed trigger sprayer onto a manageable section (0.5 m² to 1.0 m²) or panel edge. Wipe in one direction to float silicone, wax, and grease into the wet solvent film.

3

Stage 3: Immediate Contaminant Lift (Cloth #2 - Dry Wipe-Off)

CRITICAL: Do NOT allow the solvent to evaporate on its own. While the surface is still wet, immediately wipe the area completely dry using a second, clean, dry lint-free cloth, turning the cloth frequently to trap and remove lifted contaminants.

4

Stage 4: Abrasion / Sanding & Final Flash-Off

Perform scuff-sanding or feather-edging only *after* initial pre-cleaning so contaminants are not driven into sand scratches. Follow with a final two-cloth edge wipe and allow 5–10 minutes ambient flash-off before priming, painting, or applying adhesives.

METHOD B: INDUSTRIAL PARTS WASHING, MACHINERY DEGREASING & MOLD CLEANING

1. Recirculating Parts Washer / Dip Tank

Use undiluted in grounded, unheated industrial parts washers or immersion tanks (ambient temperature, max 30°C). Agitate parts with a flow-through solvent brush for 2–5 minutes, drain excess fluid back into the tank, and blow dry with low-pressure compressed air.

2. Heavy Machinery & Mold Wipe/Spray

Ensure electrical equipment is de-energized and hot surfaces are cooled below 35°C. Apply via low-pressure coarse stream sprayer (avoid fine atomization/misting) or saturated industrial rag onto gears, bearings, or injection molds. Brush heavy deposits and wipe clean.

3. Pre-Coating Metal & ABS Assembly Prep

Before powder coating, electroplating, or applying industrial safety decals onto fabricated steel or ABS enclosures, perform a two-cloth solvent wipe to remove stamping oils, human skin oils, and plasticizer bloom.



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Adhesive, Bitumen & Heavy Grease Spot Treatment: For baked-on road tar, thick open-gear lubricants, or double-sided acrylic foam tape residue, hold a cloth saturated with ALK-ABS CLEANER against the deposit for 60–120 seconds to allow the petroleum distillates to penetrate the matrix, then agitate with a non-marring nylon scraper and wipe clean.

4. Packaging, Storage & Industrial HSE Guidelines

4.1 INDUSTRIAL PACKAGING & SHELF LIFE

PACKAGING PARAMETER	STANDARD INDUSTRIAL SPECIFICATION	DISPENSING & HANDLING NOTES
AVAILABLE CONTAINER SIZES	5 Litre cans/jugs, 20 Litre steel/HDPE pails, 210 Litre industrial bung drums, and 1,000 Litre grounded IBC totes.	Use grounded metallic rotary drum pumps, self-closing brass safety faucets, or Viton-sealed solvent sprayers.
SHELF LIFE	36 Months (3 Years) from date of manufacture.	Keep containers tightly capped immediately after dispensing to prevent vapour loss and atmospheric moisture ingress.
STORAGE ENVIRONMENT	Store in an approved flammable liquid cabinet or ventilated warehouse between 5°C and 30°C .	Keep out of direct sunlight and isolated from strong oxidizing agents, mineral acids, and active ignition sources.

4.2 ESSENTIAL WORKSHOP & PLANT HEALTH & SAFETY CONTROLS

Electrostatic, Dip Tank & Fire Prevention

Classified as a Flammable Liquid (UN 1268, Class 3, PG III). Always bond and ground 20L/210L drums and industrial parts-washing tanks using copper grounding cables. Never heat the solvent in open tanks. Dispose of solvent-soaked wiping rags in UL/FM-approved self-closing metal oily waste cans.

Personal Protective Equipment (PPE)

Wear solvent-resistant Nitrile or Viton gloves (prolonged contact defats skin), ANSI Z87.1 chemical splash goggles, and antistatic shop coveralls. Use an organic vapour respirator (Type A filter) if working in confined or poorly ventilated industrial bays. Refer to SDS **ALK-ABS-CLN-001** for full GHS details.

*** END OF TECHNICAL DATA SHEET - ALK-ABS CLEANER (VEHICLES & INDUSTRIAL) ***

1. Typical Physical & Chemical Specifications



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COLOR (SAYBOLT / PT-CO)	+30 min (Saybolt) / Max. 10 (Pt-Co)	ASTM D156 / ASTM D1209
DENSITY @ 20°C	0.770 - 0.810 g/cm³	ASTM D4052 Digital Density Meter
FLASH POINT (CLOSED CUP)	Approx. 42°C (108°F)	ASTM D56 / ASTM D93 Closed Cup
INITIAL BOILING POINT (IBP)	Approx. 150°C (302°F)	ASTM D86 / ASTM D1078 Distillation
DRY POINT (FINAL BOILING)	Max. 205°C (401°F)	ASTM D86 / ASTM D1078 Distillation
EVAPORATION RATE	0.15 - 0.25 (n-Butyl Acetate = 1.0)	ASTM D3539 Gravimetric Evap. Test
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ANILINE POINT	62°C - 68°C (144°F - 154°F)	ASTM D611 Hydrocarbon Characterization
AROMATIC CONTENT	< 2.0 % wt. (De-aromatized / Plastic Safe)	ASTM D1319 / Gas Chromatography
NON-VOLATILE RESIDUE	< 0.002 % w/w (100% Clean Dry)	ASTM D1353 Gravimetric Residue
COPPER STRIP CORROSION	Class 1a (Non-corrosive, 3 hrs @ 50°C)	ASTM D130 Metal Compatibility
SOLUBILITY IN WATER	Insoluble / Immiscible (< 0.05%)	Aqueous Phase Separation @ 20°C



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Why Controlled Solvency (KB 32–38) Matters for Vehicles: Aggressive ketonic or high-aromatic thinners attack Acrylonitrile Butadiene Styrene (ABS) grilles, polycarbonate headlamp lenses, and fresh primer edges. ALK-ABS CLEANER is formulated with a low aromatic profile (< 2.0%) and balanced Kauri-Butanol solvency, giving it aggressive cutting power against silicone, wax, and road tar while remaining completely gentle on automotive plastics and cured paintwork.

2. Contaminant Removal & Substrate Compatibility Matrix

2.1 TARGET AUTOMOTIVE CONTAMINANTS

Pre-Paint & Edging

Dissolves invisible silicone overspray, mold release agents on new ABS bumpers, skin oils from sanding, and buffing compound oils prior to primer or topcoat application.

Road & Exterior Grime

Rapidly softens and lifts baked-on road tar, bitumen splatter, asphalt pitch, heavy diesel soot, wheel bearing grease, and underbody wax overspray from lower rockers.

Trim & Adhesive Prep

Cleans acrylic foam tape residue, vinyl wrap glue, dealership decal adhesives, and factory transit wrap lines along panel edges without marring clear coats.

2.2 VEHICLE SUBSTRATE COMPATIBILITY GUIDE

VEHICLE SUBSTRATE MATERIAL	COMPATIBILITY RATING	TECHNICAL OBSERVATION & BODY SHOP GUIDANCE
ABS PLASTIC, POLYPROPYLENE (PP/TPO) & BUMPERS	EXCELLENT (Safe)	Does not cause stress cracking, swelling, or surface tackiness on raw or primed ABS/PP bumper covers, mirror housings, and trim moldings.
OEM CURED CLEAR COATS & 2K URETHANE PAINT	EXCELLENT (Safe)	Safe for repeated wipe-down of fully cured factory finishes and catalyzed 2K polyurethane/acrylic clear coats without gloss reduction.
BARE STEEL, GALVANIZED PANELS & ALUMINUM	EXCELLENT (Safe)	100% water-free formulation prevents flash rusting on bare sanded sheet metal, weld seams, and aluminum body panels.



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POLYCARBONATE (PC) & ACRYLIC LIGHTING LENSES	GOOD (Wipe Off)	Safe for brief contact to remove tar or tape residue. Wipe dry promptly with a clean microfiber cloth; do not soak un-coated polycarbonate.
EPDM WEATHERSTRIPPING & SILICONE SEALS	MODERATE (Brief Contact)	Safe for incidental edging wipe-downs around door seals. Avoid prolonged immersion of natural rubber or EPDM gaskets, which may temporarily swell.
UNCURED 1K LACQUER / FRESH AIR-DRY PRIMER	TEST FIRST (Caution)	Very fresh, non-catalyzed 1K thermoplastic coatings may soften if rubbed aggressively. Test on an inconspicuous edge before full panel wiping.

3. Standard Operating Procedure: The "Two-Cloth" Pre-Cleaning Method

To prevent smearing dissolved silicones or wax across the vehicle panel, technicians must strictly follow the industry-standard **Two-Cloth Wipe-On / Wipe-Off Method**:

- 1

Stage 1: Initial Water-Wash & Blow Dry
Wash the vehicle or repair area with automotive shampoo and water to remove loose mud, sand, and water-soluble road salts. Blow dry panel crevices, door jambs, and bumper edges using oil-free compressed air.
- 2

Stage 2: Solvent Application (Cloth #1 - Wetting & Dissolving)
Soak a clean, lint-free wipe or apply **ALK-ABS CLEANER** via a chemical-resistant trigger sprayer onto a manageable section (approx. 0.5 m² to 1.0 m²) or panel edge. Wipe in one direction to float silicone, wax, and grease into the wet solvent film.
- 3

Stage 3: Immediate Contaminant Lift (Cloth #2 - Dry Wipe-Off)
CRITICAL: Do NOT allow the solvent to evaporate on its own. While the surface is still wet, immediately wipe the area completely dry using a second, clean, dry lint-free cloth, turning the cloth frequently to trap and remove the lifted contaminants.
- 4

Stage 4: Sanding & Post-Sanding Edge Wipe
Perform mechanical feather-edging or scuff-sanding only *after* initial pre-cleaning (sanding an uncleaned panel drives silicone deep into sand scratches). After sanding, blow off dust and perform a final two-cloth wipe with ALK-ABS CLEANER.
- 5

Stage 5: Flash-Off & Tack Rag Preparation
Allow 5 to 10 minutes of ambient flash-off time for any residual solvent vapour in panel seams or plastic pores to dissipate completely before applying tack rags, plastic adhesion promoters, primers, or basecoats.



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Adhesive & Tar Spot Treatment Tip: For thick road tar or stubborn double-sided emblem tape residue, hold a cloth dampened with ALK-ABS CLEANER against the spot for 60–90 seconds to allow the petroleum distillates to penetrate the matrix, then gently plastic-scrape and wipe clean.

4. Packaging, Storage & Workshop Safety Guidelines

4.1 INDUSTRIAL PACKAGING & SHELF LIFE

PACKAGING PARAMETER	STANDARD INDUSTRIAL SPECIFICATION	DISPENSING & HANDLING NOTES
AVAILABLE CONTAINER SIZES	5 Litre cans/jugs, 20 Litre steel/HDPE pails, and 210 Litre industrial bung drums.	Use grounded metallic drum pumps or Viton-sealed solvent trigger sprayers for shop floor dispensing.
SHELF LIFE	36 Months (3 Years) from date of manufacture.	Keep containers tightly capped immediately after dispensing to prevent vapour loss and moisture ingress.
STORAGE ENVIRONMENT	Store in an approved flammable liquid cabinet or ventilated warehouse between 5°C and 30°C .	Keep out of direct sunlight and away from strong oxidizing agents, acids, and ignition sources.

4.2 ESSENTIAL WORKSHOP HEALTH & SAFETY CONTROLS

Electrostatic & Fire Prevention

Classified as a Flammable Liquid (UN 1268, Class 3, PG III). Always bond and ground 20L/210L drums when transferring into smaller shop dispensers. Dispose of solvent-soaked rags in UL-approved self-closing metal oily waste cans.

Personal Protective Equipment (PPE)

Wear solvent-resistant Nitrile or Viton gloves (prolonged contact defats skin), ANSI Z87.1 splash goggles, and antistatic shop coveralls. Use an organic vapour respirator (Type A filter) if working in poorly ventilated areas. Refer to SDS **ALK-ABS-CLN-001** for full GHS details.

*** END OF TECHNICAL DATA SHEET - ALK-ABS CLEANER FOR VEHICLES ***

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Website: waterchemicalssolution.com

WhatsApp Only: 0301 9220000 | Email: admin@waterchemicalssolution.com